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\* N.B.—Names of authors in CAPITALS; Geographical names in *Italics*; Arts and Sciences in **Old English**.

† The Roman figures refer to the number of the article in the table of contents.

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ETHNOLOGY OF THE INDO-PACIFIC ISLANDS.\*

By J. R. LOGAN:

LANGUAGE.

PART II.

THE RACES AND LANGUAGES OF S. E. ASIA CONSIDERED IN  
RELATION TO THOSE OF THE INDO-PACIFIC ISLANDS.

CHAPTER V. (*Continued*).

ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIRIAN FORMATION,—EMBRACING NOTICES OF THE FINO-JAPANESE, CAUCASIAN, INDO-EUROPEAN, SEMITICO-AFRICAN, BUSKARIAN AND AMERICAN LANGUAGES.

Sec. 11. GLOSSARIAL INDICATIONS OF THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIRIAN LANGUAGES.†

1. PRONOUNS AND GENERIC PARTICLES.

A comparison of roots, unless it embraces a wide field and is made with extreme caution, cannot lead to solid and satisfactory results. That great Iranian philologist Bopp has said that the chance is less than one in a million for the same combination of

\* Continued from Vol. VIII.

† In the present state of glossology, every comparison of words for ethnic purposes must be exceedingly imperfect. The most distinguished philologists have not been able to avoid blunders when they have enlarged the circle of their com-

sounds having the same precise meaning in unconnected languages. This calculation of probabilities is evidently based on a formation of which the syllables are frequently biconsonantal and the words polysyllabic. It is totally inapplicable to monosyllabic languages, or indeed to a comparison of ultimate roots in any formation, because these roots are generally monosyllables. In the Kwan-hwa Chinese, for example, the number of words is about 48,000, but the sounds to express those words only amount, even with the tone flexions, to 1,203. So that each sound, on an average, would represent 40 different words if these words were all in use. By enlarging the number of monosyllabic languages for comparison, the number of homophons increases. But this is not all. In the progress of language the tones decay, become reduced in number and are ultimately lost. When the process of emasculation goes on without interruption, the vowel sounds are contracted to a very small number. In Philipine there are only three distinct vowels, *o* and *u*, *i* and *e* being very commutable. Add to this that in

parative studies in order to take in languages with which they are imperfectly acquainted. A complete investigation of the ethnic history of a single root demands a thorough knowledge of all the languages in the world and no single philologist can ever attain this knowledge. Hence it is only by combining and comparing the labours of numerous comparative linguists that the ethnology of roots will ultimately be perfected. Roots ramify through vocabularies in a very complicated manner changing not only their forms but their meanings, so that it is not possible, by merely turning over the leaves of a dictionary, to ascertain whether a given root exists in a particular language or not. We must know the phonology of the language, its phonetic and glossarial relations to other languages, and the kind of analogies that prevail throughout its glossary and enable us to trace the metamorphoses of its roots. The only man who can pronounce whether a given root exists or not in a particular language, is a sound comparative linguist who has devoted himself to a thorough analysis of that language. Until complete analytic glossaries are prepared, the comparisons of ethnologists must continue to be in great measure empirical, and must be received with a considerable allowance for errors. The following comparisons require a large allowance not only from the necessity of the case but from the special disadvantages under which the collator labours. They are limited to the classes of words mentioned in the Prefatory Note to Part II. A full ethnic comparison of the Dravirian vocabularies with those of other families would be a labour not for a single life but for the ethnologists of several generations.

[Before sending this section to the press I received by the last mail steamer Chevalier Bunsen's *Philosophy of Universal History*, to which Professor Max Müller has contributed two chapters on the Scythic, Dravirian, Tibeto-Ultraindian, Thai, and Malay languages. Some of the glossarial details in this section and in the next chapter have I find been anticipated by Prof. Müller. Where he has supplied data which were not accessible to me, I have added a few notes which are distinguished by brackets. The supplement containing the comparative vocabularies having been printed some time since, I have not been able to subjoin any notes to it. I do not in this place offer any remarks on the coincidences between Prof. Müller's views on several points, and those previously published by me in the present series of papers. They will be sufficiently obvious to ethnologists who have read my 4th and preceding chapters, with the general remarks on Asonesian ethnology contained in the volume of this Journal for 1850].

comparing different formations, and even the various dialects of the same formation, consonants and vowels frequently exhibit great instability, so great indeed that it can be asserted with perfect truth that each vowel is capable of being, by successive gradations, transmuted into all the others. The same remark applies to the consonants. In Polynesian there cannot be said to be more than 10 (in Raratongan and Mangarevan 8) consonants, the sonants having generally become confounded with the surds. The dentals are transmuted into the liquids with great facility. They pass into the gutturals through the strong mutual affinity of the surds *k* and *t*, and into the labials through the liquids. Thus, to start with *t*. It may pass into *g* through *k*, on the one side, and through *d*, *r*, *l*, *n* into *m*, *b*, *v*, *f*, *p*, on the other. Its direct affinity to the sibilant and aspirate *th*, *s*, *z* &c. is so great that it frequently passes into them in many languages. Particles, whether separate, formative or flexional, are generally monosyllabic, and even to a large extent uniliteral in all formations. In the Burmah-Tibetan, the pre-Arian Indian, the African, the Turanian, and, it may be added, in the Iranian, words of all classes are radically monosyllables. It is evident, therefore, that the phonetic identity of a particle in two or even more languages has hardly any value at all as an isolated fact, for comparative and ethnic purposes. It happens, also, that a number of identical particles are so widely spread throughout most of the formations of the world that nothing can be learned from them *per se*, respecting the specific affinities of different formations. We arrive at this rule, that it is only by comparing particles in groups, and in connection with the entire phonetic and ideologic character of each language, that positive ethnic conclusions can be attained.

In the Burmah-Chinese languages there is little connection between the particles. They are in general as isolated and independent of each other as substantive words. In the Dravirian formation, on the contrary, they are intimately connected both phonetically and idiomatically, and this greatly facilitates their comparison with those of other formations. In Dravirian we find a number of particles formed into a well marked system, presenting even flexional traits. For example the principal pronominal terms, as exhibited by the purer languages, or those of the South, are, *na*, "I," and *ni* "thou," *n* in the plural becoming *m*. Thus the three main

pronominal elements may be considered as flexionally related, and this gives to the Dravirian system a marked character. In addition to this the root is reduplicated, with a change in the second vowel, or it is combined with a definitive particle.

#### A. Pronouns.\*

Before attempting to trace the range and the affinities of the Dravirian pronouns, it is necessary to determine their proper forms, and mark their variations as accurately as possible.

The root of the First Pronoun occurs under the full forms *na* (Tamil, Kurgi, Karnataka, Gond, in pl. Malayalam, Male), *nga* (Malayalam) and *ne* (Telugu). The vowel becomes *o* in some forms. The definitive *-nu* is postfixed in Karnataka, Telugu and Khond. The Gond agentive *nu-na* appears to invert the relative position of the root and the definitive. The common Gond form, *nah*, preserves the true vowel of the root and postfixes the prevalent definitive of that dialect. Tamil, Malayalam and Kurgi postfix the contracted form of the definitive, *-n*. The root, as frequently happens in Dravirian glossology, loses its initial consonant in some forms, e. g. *anu*, *an*, *a*. The form *en* may be an inversion of *ne*, but it is better explained as a contraction in which *e* is the radical element (*en* from *nen* or *nenu* like *an*, *a* from *nanu*, *anu*).†

\* On the general subject of the Dravirian pronouns I may refer the reader to the valuable papers by the Rev. Dr Stevenson in the Journal of the Bombay Asiatic Society, and in particular to his article in the number for January 1852. My own glossarial comparisons had been independently made before seeing this paper, but it is due to Dr Stevenson to remark that one of the affinities which has considerable weight in my deductions has been noted by Dr S. although only as an isolated fact,—that of the 1st pronoun to the Chinese *ngo*. His general inference that the Dravirian pronouns are of a peculiar type more allied to the Turanian than to the Sanskrit—unless it refer to the structure and not to the roots—is open to the remark that the Sanskrit roots are Turanian or Scythic while the Dravirian are not. The 1st pronoun, Dr Stevenson remarks, “is allied to the languages of Arabia and Syria on the one hand, and on the other with the Chinese family,” and also with “the Tibetan.” The foreign affinities of the 2nd pronoun are not adverted to by Dr S. The main scope of his papers is to distinguish the Dravirian from the Sanskritic elements in the Guzarathi-Bengali class of languages. The honorific *ap*, *apun*, *apan*, &c., of these languages he identifies with the Dravirian *avan*. Every student of the languages of India will find much matter of the highest value and interest in Dr Stevenson’s papers. His comparative vocabulary of the non-Sanskritic vocables in the vernacular languages of India promises to be a work of solid erudition, and its completion will be an important service to Indian and Asonesian ethnology.

The resemblance between the Chinese, the Tibeto-Ultrindian and the Draviro-Australian pronouns was shown in the glossarial tables in my paper on the “Traces of an ethnic connection between the basin of the Ganges and the Indian Archipelago before the advance of the Hindus into India” read before the Royal Society of Edinburgh in January 1851, *vide ante* vol. vi, p. 654.

† In chap. IV sec. 6, I have considered *en*, *ne* as seemingly the radical form, and in some cases assumed as portions of the root elements that I now refer to



In the Tamil *ya-n*, Tuluva *ya-nu*, the contracted forms *an*, *anu*, take the common *y* prefix. The Todava *one*, *on* (pl. *om*) is a similar contracted variety, with the radical vowel changed to *o*. In the broad form *won*, *wom* it assumes a quasi-consonantal augment, like some other words, e. g. *on*, *won*, "one." The *o* form of the vowel also occurs in the Tamil verb form of the plural *om*, corresponding with the Todava; in the Gond oblique *no-wa* sing., and in the Male poss. *ong-hi* sing. *om* pl. (Tam. Tod.) The substitution of *o* for *a* is characteristic of the Toda phonology. But as the Gond and Male forms cannot have been immediately derived from it during the era in which the more civilised Dravirian nations have been interposed between the Todas and the Gonds, it is probable that the *o* forms are very archaic and were at one time widely prevalent. The Tamil remnant in the plural of the verb postfix is a strong evidence of the antiquity of *o*. Possibly it is the original form, but the general character of Dravirian phonology makes it more probable that variations in the vowel existed from an early stage of the formation. In unwritten languages dialectic changes in the vowels are very common.

The Second Pronoun has the full form *ni* in all the Southern dialects and in Gond, with and without postfixes (*-nu*, *-vu*, *-en*, *-k*). The forms *nu* and *u* [def. replacing pronoun] occur in the Tamil plural poss., and *na* in the Todava pl. The contractions *i* and *ai* are also found.

Two kinds of pronominal plurals occur. In one the root postfixes the ordinary plural definitives like substantives. All the relative or "exclusive" plurals of the 1st pronoun are thus formed. The second kind postfix *m* or flexionally replace the *n* of the singular by it. As it only occurs in the absolute or "inclusive" forms of the 1st pronoun, it is possible that in Dravirian, as in some other formations, one of the plurals of this pronoun is formed by the annexation or incorporation of the plural of the 2nd. In this view *m* would be radically a plural particle or root of the 2nd

the definitive postfix. The great commutability of the vowels in both the proper Dravirian and the Kol dialects, with the agglutinated and concretionary condition of the pronominal system, renders absolute certainty unattainable in minute analysis of forms. The Kol affinities favour the opinion that *en*, *ne* was the original form, while the Australian and the still more remote and primordial affinities render it hardly doubtful that the most current agentive-form in the South *na*, *nga* with its variations in *o*, is the most archaic. Whether the three vowels *a*, *o*, *e*, were archaically flexional,—that is, marked different forms of the pronoun, agentive, oblique &c.—is considered in a subsequent page.

pronoun only, and it would simply carry into those forms of the 1st in which it occurs the idea of "you" in addition to the original "I", the Tamil *na-m* being thus literally "I-you"—i. e. "I and you." Its displacement of the *n* in such forms as the Telugu *me*, Karn. and Toda *am*, Gond *ma*, would be a flexional change of an ordinary kind. In the Telugu *me-mu* both the root and the definitive postfix are flexionally changed to *m*. Whatever may be the ultimate origin of this exceptional *m*, and whether or not it passed from the 2nd pronoun to the 1st, its true character, in the present condition of the formation generally, is that of a plural element confined to the 2nd pronoun and to the absolute or inclusive form of the 1st. Toda however presents a remarkable exception in its 3rd pronoun, which in the plural is *atam* or *adam*. This remnant of the undoubted use of *-m* as a plural definitive, and not merely as a form of the 2nd pronoun, when taken in connection with the Gangetic and Ultraindian remnants of a similar usage adverted to in a subsequent page, leaves little doubt as to its having been a very archaic plural particle in Dravirian, or in one or more of its branches. The phonetic identity of this archaic plural postfix with the archaic neuter (sometimes fem.) definitive postfix in *m*, *b*, *p*, *v* can hardly be accidental. The fem. *l* is also identical with the common plural postfix in *l*, *r*. The Karnataka pronouns have *-vu* in the plurals of the 1st and 2nd persons and *-ru* in the 3rd as in the other languages save Toda (in Tuluva *-ru* becomes *-lu*). This *-vu* is identical with one of the forms of the neuter definitive. In the use of these particles the dialectic confusion and irregularity are very great, and it is difficult to determine their true primary functions.

The Vindyan languages present some remarkable dialectic peculiarities. The Gond and Khond have the common *a* forms of the 1st pronoun. The other northern languages in their agentive forms have only that contracted variety of the *e* form which is the separate pronoun in Tuluva (*en*), and occurs also as a possessive and verbal form in Tamil, Malayalam and Karnataka, and the plural of Kurgi, the full form being found in Telugu *nenu* (pl. *memu*). In the more purely Dravirian Male and Uraon the Tuluva form is preserved unmodified *en* Male, *enan* Sing., *en* Pl. Uraon. So in the possessives,—Sing. Uraon *en-ghi*, Pl. Uraon *em-hi*, Male

em-ki. Male preserves other varieties also, as om Pl. (in addition to na-m) ong-ki poss. Sing. In the Kol dialects the vowel changes from e to i, ing, eing, aing, inge. These forms appear to preserve the original possessives of South Dravirian, to which in a later page I refer the e. It should also be remarked that the vowels i, e, a are definitives and definitive prefixes in Kol as in Dravirian generally. Compound vowels occur both as a simple definitive and as a possessive. Kol has ia or ya poss. as in S. Dravirian and it has ayo, ay, ai &c as a definitive or 3rd pronoun, identical with the Tuluva 3rd pronoun aye (so ayi-no, "this"). It is found also in Male. Compare the possessives ai-ge Bhumij, ahi-ki Male "his" &c. The change of ai into e, or e into ai, is easy, for e is but a condensed form of ai.

The Male and Uraon 2nd pronoun is the South Dravirian ni,—nin Male, nien Uraon. The Khond *inu* is Tuluva (pl.) which again is a contraction of the Karnataka *ninu*. Gond has the full form with its own def. postfix in oblique forms, *nik*.

Besides this form Gond has a peculiar agentive form *imma*, to which the Kol 2nd pronoun is allied, *am* Bhumij, *Mundala*, *um* Ho, *umge* Sonthal (*ami* poss.) The Kol duals and plurals present further variations of this labial 2nd pronoun, *me*, *m*, *be*, *pe*. Its probable origin is adverted to further on.

The Dravirian plural element *m* is found in Khond,—*anu* "I," *amu* "we," *inu* "thou," *mi* "you"; Gond *nak* "I," *mak* "we," *nuna* "I," *mar* "we"; so in the oblique forms of the second pronoun *nik*, S. *mik*, *mek* Pl., Male has *na-m*, *o-m*, "we," *e-m-ki*, *na-m-ki* Pl. poss., Uraon *e-m-hi* Pl. poss.

The Kol plurals in *m*, *b*, *p* represent the Dravirian plural labial. In the 1st pronoun the relative plural takes the common plural def. *-le*, and the absolute only has the labial, under the form *bu*, \* conformably with the South Dravirian idiom.

It appears from these details that the original forms of the pronouns were *na* or *nga* "I" and *ni* "thou"; that *m* was a plural definitive originally generic but afterwards restricted save in Toda to the 2nd pronoun and to the plural absolute of the 1st; and that the ordinary plurals of all the pronouns were formed by the plural definitives used with nouns. The form of the 1st pronoun in

\* In chap. IV. § 6, this form is not identified with the Dravirian plurals in *m*, but it is inferred that the labial element represents *be*, "you."

en is a dialectic variation which must have prevailed in the parent Kol dialect as in Tuluva. The Gond *imma* of the 2nd person is evidently a secondary form (in which *i* is the common pronominal element) as the regular primary form *ni:k* is preserved in the oblique cases. The allied Kol labial 2nd pronoun must be of similar secondary origin.

The Kol dialects distinguish the dual from the plural in pronouns, as in substantives, the dual form being given by annexing the nasal to the plural. Thus the substantive pl. definitive is *ko*, which in the dual becomes *king* [= *ko* + *ing*]; the pl. rel. of the 1st pron. is *alle*, which in the dual becomes *alleng*; the pl. of the 2d pron. is *appe*, which in the dual becomes *abben*. The dual particle is probably the Dravirian *en* "two" (the Uraon form) but it may be a variation of the Dravido-Ultrindian plural *el*, *le*, *li*, *ni* &c., the dual being indicated by plural particles in some other families (Semitic, Scythic &c.) as well as in some Australian dialects.\* The South Dravirian dialects with Gond Uraon and Male, do not possess a dual.

Besides the indication of number and case, it does not appear that any other ideologic element is involved in the postfixes or flexions. The 3rd pronoun indicates sex by its postfixed definitives, the consonants being *n* masc., *l* fem. and *d*, *th*, *t* neuter. There are no clear traces either of these or of a vocalic distinction of sex in the proper pronouns, which is the more remarkable from the sex definitives having, in the archaic stage of the formation, been used with substantives, and from their being found largely concreted in all the vocabularies as well as still partially current. If any sexual function can be ascribed to the pronominal postfixes, it would appear that the common forms now in use are masculine, -*n* and -*nu* being the form of the postfix. If sexual forms were ever current, we might have expected to find some traces of a feminine form in the 2nd person, but *l* nowhere occurs as the postfix.

The variations in the vowel of the 1st pronoun to *e* and in that of the 2nd to *u* may have been glossarial. There are indications of this with respect to *e*, which however may have been the common phonetic variation of the final vowel found largely in the vocabularies. If, as seems more probable, it had a flexional power,

\* In Australian the plural particle forms duals and one of its variations is -*le*.

it would appear to have been possessive (and oblique), as it is now found in all the Southern dialects, save Telugu, in those cases, or as the agentive postfix to verbs, which is radically possessive. In Telugu, by a dialectic variation, it occurs only in the nominative, the oblique cases taking the primary *a*. The Northern dialects, Uraon, Male, in their preference for *e*, follow Telugu, or more probably the Southern Tuluva, which has other special affinities with the Northern dialects including the Kol. It is probable from this that *a* (sometimes varied to *o*) was the proper nominative vowel, and that the substitution of the possessive *e* for it was a dialectic variation which spread from Telugu or Tuluva to most of the Northern dialects, or was internally produced by the loss of the ideologic distinction between the two forms. It is clear that the use of *e* in the possessive like that of *m* in the plural belongs to a very archaic condition of the formation or some of its branches. It is not probable that in any single branch there were originally two modes of indicating the plurals and possessives, and it is still less probable that both admitted of being combined. When we now find such combinations it is to be inferred that one of the particles is primary and the other secondary, the combinations having been produced by the blending of a foreign system of postfixes with the Dravirian or of two Dravirian systems previously characteristic of different branches of the formation. The antiquity and wide prevalence of the ordinary plural particles in *l*, *r* &c are proved by their occurrence not only in South Dravirian, Kol and Gangetico-Ultraindian languages but in Asonesia. But one branch may have originally possessed labial plurals. The possessive in *e* whether postfixual or flexional must have preceded the use of the superadded possessive postfixes. The most probable explanation afforded by the Dravirian particle system by itself is that the pronominal root *na* took the archaic possessive in *i* (*in*, *ia* &c South Dravirian, Kol) and that this became *e* by the coalescence of the root vowel *a* with the definitive vowel *i* (*na-in*=*nen*). But even the current possessive has sometimes *e*. Thus in Tamil we find *ei*, in Malayalam *ye*, in Dhimial *eng* &c.

The *u* of the 2nd pronoun can hardly be explained as a merely phonetic variation of the radical *i*. In the Anc. Tamil it occurs in the full form *nu-* in the possessive plural only *nu-ma-du*, the

singular being *ni-na-du*. If any inference may be drawn from this, it is that it is possessive and probably plural. In Mod. Tam. it occurs in the possessive both of sing. and pl. *u-na-du*, S. *u-ma-du* P. In the Kol dialects it is also found with a plural force under the form *bu* if my analysis of *abu* be correct. The absence of *e* or *i* in the possessive of the 2nd pronoun is accounted for by *i* being the root vowel of the pronoun itself. In Chap. IV. it was stated that "the objective appears to be radically *nu* or *un* which is probably a variation of the possessive" (*du*, *ru* &c.). Malayalam has *u-de* as well as *in-de* as composite possessives. The archaic possessive function of *u* in the former is attested by *in* of the latter. I would therefore explain the pronominal *nun* and *un* as contractions of *ni-un*.

In the original system the roots and postfixes were free, and hence the same root admitted different postfixed or postplaced definitives. With the decay of this freedom, the variety in the definitives and the existence of double plurals, gave rise in the concretionary stage to considerable dialective divergency and some confusion, as in all other pronominal systems using originally several elements for the expression of distinctions in each person. In the closely connected Southern dialects these variations are very marked, and in the Northern they take a still more irregular and seemingly capricious character. In the Tamil 1st person we find the concreted forms *yan*, *nan* in the singular agentive, but in the singular possessive *ena* or *en* with the corresponding plurals possessive *ema* and *nama*. (I omit the poss. postfixes *-du*, *-de*, *-di* &c.) In the 2nd person we have *ni* both in the agentive and possessive of the "Ancient" dialect, but in the "Modern" *un* or *una* in the possessive, corresponding with the plural possessives in both *numa* Anc. (the full form), and *uma* Mod. In disintegrated and concreted systems, the original force of the secondary elements passes away, and hence serviles come to replace roots, one form to be substituted for another, generic definitives to receive a special restricted use, special definitives to be generalised or to be clothed with a new special power &c. Thus in Telugu in the singular the definitive *-nu* has become concreted with the 1st pron. and *-vu* with the 2nd, while in Karnataka *-nu* retains its position in the singulars of both and *-vu* is plural in both. Hence *nivu* is "thou" in Telugu but "you" in Karn. The Telugu plurals are

equally irregular and cumulative, for the 1st person takes *-mu* in addition to the flexional labialising of the root itself (*memu*), while the 2nd not only labialises the root but adds an ordinary plural definitive (*miru*). The poss. presents yet another form of the 1st person *na-sing. ma-pl.* The sexual forms of the 3rd pronoun show similar changes. The proper forms are *va-n*, or *va-nu* masc. *va-l*, or *va-lu* fem. and *du*, *da* or *di* neut. postfixed to the def. But in Telugu *-du* has become masc. (the neuter being varied to *-di*). In Karnataka the masc. has become *va-m* and in Telugu the fem. has become *a-me*. I have already remarked that Telugu also reverses the ordinary functions of the vowels in the 1st person, *e* being agentive (*ne-nu*) and a possessive (*na-yoka*). As in Semitico-African and Indo-European languages, the postfixed agentive forms of the pronouns in some cases echo the definitive and not the pronoun.\* This is almost uniformly done by Telugu, the 1st person postfixes *-nu* (from *ne-nu*), the 2nd person postfixes *-vu* (from *ni-vu*), the 3rd masc. *-du* (from *va-du*), the fem. *-di* (from *a-di*, now neut.) and the neut. *-thi* (from *a-thi*). The concreted definitives of nouns show variations similar to those of the pronouns. Some nouns have the same definitive in all the dialects. Some have a masc. postfix in one dialect, and a fem. in another.

In the Northern languages the dialectic irregularities are still greater than in the Southern, Gond having for "I" the forms *na*, *nu*, *no*, *-an* S.; *ma*, *mo*, *-um* Pl.; and for "thou" *im*, *ni* S.; *im*, *mi*, *me* Pl. Male and Uraon have similar varieties. Male en "I", ong poss. Sing., *na-m*, *o-m* Pl., *em* Pl. poss., Uraon en-, eng- "I", *em-in* Pl. poss. The Northern forms in *o* resemble the *Todava* one, *on*, *won* Sing. *om*, *wom*. Pl. *Todava* frequently replaces the *a* of other Southern dialects by *o* (e. g. "eye" *kon Tod.*, *kan* in the other vocabularies; "milk" *por*, for *pal*; "six" *ore*, for *aru*).

In the Kol dialects the Dravirian roots are still further confused.

The foreign affinities of the Dravirian pronouns, are of two classes, the first embracing those indicative of an archaic extension of the formation beyond the present Dravirian province and the

\* The Kol *le* "we", *be* "you" are examples of the plural particles taking the place of pronouns.

second being of a primordial character and pointing towards the derivation of the formation itself.

The pronouns clearly indicate an early prevalence of the archaic Indian formation over Ultraindia and Asonesia, and the forms in which they are found in these regions show that the proper South Dravirian varieties are the oldest and purest, and were first and farthest spread to the eastward. They are found in all their integrity throughout the Australian sub-formation,\*—the most ancient in Asonesia—and fragments of them are also preserved in other Asonesian provinces. The dialectic Kol system, on the other hand, is found in its integrity in the Mon-Anam formation, the oldest that is extant in Ultraindia, while it is also partially traceable in Asonesia.

The Australian pronouns are nga "I" and ngin, nin, ngi "thou," with postfixed definitives as in Dravirian, *-nya, -ni, -ngi, -na, -te, -toa, -du, -pe, -i*. Comp. the Drav. *-nu, -na, -n, -vu*, and the common noun definitive postfixes. The common form of the 2nd pronoun, nin, is the Dravirian root combined with the contracted Dravirian postfix as in Karnataka, Kurgi and Male nin. In the Australian system the plurals are formed, like the ordinary Dravirian ones, by the plural postfixes, the Dravirian special *m* plurals being absent unless they are represented by *-na*. Australian has a distinct dual formed by a Draviro-Australian plural particle *-li, -le, -dli, -lin*, &c 1st pron., *-rang, -ra, -rle*. &c 2nd pron. The 2nd has also *-wa* and the compound *-wala* in some languages.

The Tobi nang, Ulea ngang, Pelew nak, Banabe nai, Tarawangai, [Austr. ngai], Rotuma ngo, ngou, and the Sumba *nyungga* of the 1st person, with the Onni ono, Tarawa ungoe, ngoe of the 2nd person, are also Draviro-Australian.

The indication of sex in the 3rd pronoun distinguishes Tarawan and Australian from the proper Malayu-Polynesian languages and is one of the traits that connect the archaic pronominal system of Asonesia with the Dravirian.

Although the plural forms in *m* are absent in Australian, it has absolute as well as relative forms of the plural of the first person.

\* The first indication of resemblances between the Dravirian and the Australian pronouns is due to Mr. Norris.



In some dialects the former are produced by the union of roots of the 1st and 2nd persons. The latter is represented by the dual forms only. In the Malayu-Polynesian languages the two plurals and also the dual are found, and as they are not now Malagasy, although found in Semitico-African languages, they may be Dravirian traits. In some languages the dual and relative plural are not distinguished.

The general character of the most ancient Asonesian pronominal system—as preserved in various degrees in the Australian languages, in Tarawan, Vitian, Tanan, in Polynesian and in some of the less impoverished Indonesian languages—is similar to the Dravirian, but it is more archaic, more complete and less concreted. The different elements are more numerous and more freely and regularly combinable. In the Australian system we find not only all the forms that are now extant in South Dravirian, as well as the dual and the peculiar transition or agento-objective forms of Kol, but several others produced by the same power of compounding elements in which these originated. This power is much less impaired in Australian and the allied Asonesian systems, and the inference is that in this, as in several other respects, they better preserve the archaic Indo-Asonesian type, and may hence suggest to us what the condition of Dravirian itself was before its forms had become diminished, confused and concreted as we now find them. In Australian the pronominal roots are compounded with definitives, singular and plural, with the numeral “two” to form duals, with masc. and fem. definitives in the 3rd person, and in all the 3 persons with each other, thus producing not only absolute and relative plurals of the 1st person, but several other complex plurals. The Viti-Tarawan elements are still more freely compounded and their forms of this kind are consequently more numerous. The incorporation of numerals appears not to have been confined to “two,” for in some of the Papuanesian languages a trinal is found, and in Polynesian the same form has lost its original meaning and become a generic plural. This highly agglomerative but crude pronominal system has not been derived from Malagasy, and its presence in Asonesia is attributable to a prior formation, of Indian origin, similar to the Dravirian but

more rich in forms because simpler and less concreted. It thus carries back the Dravirian type to a condition analogous to the American. To illustrate these remarks by going into details would be to anticipate so far the ultimate aim of our examination of Dravirian and the other S. E. Asian formations, and I must therefore refer the reader to the subsequent section on Australian.

The merely glossarial connection between the Dravirian and the Australian systems embraces the pronominal roots, several of the agentive postfixes, plural postfixes and perhaps some vocalic flexions of the roots. The 2nd pronoun in several dialects changes its proper vowel *i* to *u* in the dual and plural. In some the *a* of the 1st pronoun becomes *e* in the plural. In Australian as in Dravirian and other compound agglutinative and partially concreted systems, the pronoun is in some forms replaced or represented by other elements, definitive, numeral &c.

The sexual distinction between the definitives *n* and *l* is not found in the known Australian languages or in Tarawan. The 1st and 2nd pronouns do not take sexual postfixes, a fact telling against any surmise that Dravirian may have had them in an early stage.

The North Dravirian pronouns evidently preceded the Tibeto-Burman in the Mon-Anam languages and in Ultraindia generally. They are preserved in the pre-Malayan basis of the languages of the Malay Peninsula—Sĭmang as well as Bĭnua—and they have also spread to the Eastern Islands. The most common form of the 1st pronoun is similar to the Kol *ing*- with its variations *eing*, *aing*, *inge*—which is a liquid modification of the prevalent South Dravirian possessive *en*, occurring also in Uraon (*eng*). Both the Southern and Northern Dravirian *en*, *eng* and the Kol form *ing*, which is probably the original, are dispersed amongst the vocabularies of South Ultraindia and the Malay Peninsula, *en* Sĭmang; *eng* Chong, Kambojan; *eing*, *ein*, *ye* Sĭmang; *ain*, *oin*, *yun* Bĭnua; *oei*, *oe* Mon. In Indonesia the North Ultraindian form is perhaps found in Sunda *aing*, but this may be a Niha-Polynesian prefix with the true pronominal root elided. The Timor *ani* and Kissa *ba-nian* are probably connected with it. The Sumba *nyu-ŋga* is South Dravirian and Australian in form, but Gond has *nu-na*. The prevalent Niha-Polynesian forms of the 1st pronoun are not Kol.

The Kol 2nd pronoun—which is much more persistent and widely spread in the Mon-Anam languages than the 1st—is very remarkable, and at first view anomalous, in its form. It is a labial, occurring under the forms *imma Gond* (agentive), *am, um, umge, me, m, be, pe Kol*. In the Himalayas the Kiranti *am* of the possessive *am-ko* is the only example of this root or form. In Ultraindian it is *Mon pueh, pi, bai; Kasia, me, pha; Anam, mei; Lau, mung, mau, mo; Chong bo; Sîmang, mo, bo; Tranġ-ganu mong*. The form is rarely found in Asonesia in the agentive singular, which in the Niha-Polynesian languages, is, like the 1st pronoun, of Semitico-Libyan derivation through Malagasy. In the Timorian group,—which preserves the N. Dravirian 1st pronoun in some of its languages and has other N. Dravirian traits—we find in the singular *mue Solor, nyu mu Sumba*, (*nyu* definitive as in the 1st pron. *nyu-ngga*, which is also Dravirian). It is common in the Niha-Polynesian languages as a possessive under the forms *mo, mu* sometimes *mi*. It is found in the plural, either by itself or combined with another particle. It also enters into the exclusive or relative plural of the 1st pronoun.\*

In the N. Ultraindian and Mon-Anam languages it is exceptional as a root for the 2nd pronoun, none of the pronominal systems of the formations with which they are connected, or which are found in Eastern Asia, using a labial root.† The *nang, neng* of the Chino-Tibetan and Ultraindian system is variable in Burman to *mang, meng*, but this mutation of the *n* of the root is confined to it, and its absence in the adjacent dialects of the same sub-formation, the forms of the pronoun in the conterminous Mon, and the recent Ultraindian spread of Burman even when compared

\* But as the *m* element may in some cases be the so-called companionative or may be a direct engraftment from the Dravirian plural of the 1st pronoun in *mi &c*, it is enough at present to remark the prevalence of *mu, mo, mi* as a subsidiary root for the 2nd pronoun in Malayu-Polynesian. That as such, it is a Dravirian or Draviro-Ultraindian engraftment on the Malagasy-Polynesian or Oceanic system is clear from its being absent not only in Malagasy but in the present Semitico-Libyan system.

† Although I consider the explanation in the text the correct one, it should be remarked that several of the Ultraindian forms of the Scythico-Australian labial third pronoun and definitive have a close resemblance to varieties of the labial second pronoun, and that in some formations these two pronouns involve the same definitive. This is the case in Tibetan, Semitico-Libyan, Indo-European, Lesgian and Samoiede. Comp. *mung* "thou" Siamese, *mung*, "He" &c *Kambojan; pi* "thou" Mon, *ke, pike* "he &c." *Kambojan; ma* "he &c." *Dophia; bo* "thou" *Chong, Simang; ico* "he &c" *Simang, Newar; bu, Miri &c &c*.

with the Naga-Manipuri branch of the same family, shut out the supposition that this accidental form was the parent of the archaically diffused Mon-Anam, Vindyan and Asonesian pronoun. As the latter is neither Chinese, Tibeto-Ultraindian, Tatar, nor Malagasy, we are thrown back on the system to which the 1st pronoun belongs, and the widely prevalent plural power of the form in the Niha-Polynesian languages suggests that it is simply a Dravirian plural used for the singular, as happens in many other languages with the 2nd pronoun (e. g. the English "you" for "thou"). In Dravirian we find amongst current forms for "you" *miru* Telugu, (*midi* poss.) where the plural *m* displaces the *n* of the root, (*ni*, *nivv*) as in the plural of the 1st pronoun, e. g. Telugu *nenu* "I", *memu* "we," Toda an "I", am "we". Tamil *emadu*; "ours", *umadu* "yours". With these compare the Khond anu "I", *amu* "we"; *inu* "thou", *mi* "you", the last term being identical with the Telugu *mi* of *miru*. The nearest South Dravirian forms occur in Todava *ni-ma* Pl. and Karnataka *ni-m* Pl., (Anc.), *ni-vu* (Mod.); *ni-ma-du* Pl. poss. (Mod.) The Gond *i-ma* is evidently a contraction of *ni-ma*. In some of the southern forms also, the root of the second pronoun is represented by the vowel only. The Kol variations of the proper radical vowel *i* to *u* and *a* are found in some of the southern languages. In Kol the singular forms are *um* (as in the Tamil Pl. poss. *umadu*) *am*, (as in Toda *nama* Pl.), *me*, *m*, variable in the plural composite terms to *bu* (comp. S. Dravirian *vu*), *be*, *pe*. The connection between these and the Ultraindian *mo*, *bo*, *pi*, *mong*, *mung* &c. is obvious. The Telugu verbal postfix of the 2nd pronoun *-vu* exhibits the same substitution of the plural definitive for the pronoun. In the Semitico-Libyan system, in which *m* has a plural power as in Dravirian, like examples occur of the replacement of the root by the plural particle. The Kol *le* "we" is another example.

Of the Kol forms *um*, *bu-am*, *me*, (*be*, *pe*)—corresponding with the South Dravirian *um*, *vu*, *am*, *mi*—the first is the most widely spread in Ultraindia and Asonesia in the forms *mu*, *mo*, *bo*, *mung* &c. In South Dravirian it is rare, but its occurrence in the possessive plural of Tamil (*um*) and in the plural of Karnataka (*vu*) places its Dravirian origin and antiquity beyond doubt.

The distinctive vowel *u* is found in the Tamil singular also (un).\*

Dravirian pronouns and pronominal traits are also found in the Gangetic and North Ultraindian languages. But as the Tibeto-Ultraindian pronouns are themselves radically the same as the Draviro-Australian, and as this radical agreement belongs to the most archaic pre-Indian affinities of Dravirian, it will be noticed in connection with these. For various examples of Dravirian traits in the Gangetico-Ultraindian systems I may refer to chap. IV. Here I shall only mention one, as it is illustrative of the archaic use of *m* as a plural definitive.

The Naga pronominal system—which is a Tibeto-Burman superstructure on a Dravirian basis—preserves the Dravirian plural postfix in Namsangya *ni-ma* “we,” *ne-ma* “you.” The possessive of the 1st pron. sing. and pl. is *i* (from *ni* “I,” originally possessive now replaced by the Tibeto-Burman *nga* as a separate agentive term) but that of the 2nd pron. sing. as well as pl. is *ma* (from *ne-ma*). In Tengsa Naga *me* occurs as the 2nd pronoun in the possessive *mechi*,—the separate form being the common East Tibetan *nang*. In Joboka Naga *m* is retained as the plural postfix although the roots are changed, 1st *ku* Sing. *kem* Pl.; 2nd *nang* Sing. *hanzam* Pl.; 3rd *chua* Sing. *hom* Pl. It will be remarked that while Namsangya like the Dravirian languages in general restricts *m* to the proper pronouns, Joboka like Toda extends it to the 3rd also. The only other Gangetico-Ultraindian language in which this particle appears to be found is the Gurung which has it in all the three pronouns under the form *-mo*. The Newar *-ping* is probably another variety of it. The Mozome Angami Naga *-we* of the 1st pronoun resembles Kol forms. In Angami *ma* appears to be combined with the liquid plural particle of Dravirian in all the pronouns *-ra-ma*. In Garo mong (comp. Gurung *mo*) and *ma* occur as plural elements, and the Burman labial plural may be the same particle.

\* [Prof. Max Muller's table of pronouns supplies two additional examples of the use of this form. In the Malabar dialect of Malayalam, the oblique form of the singular is *um*—(with postfixes), while the plural has both *un* and *um*. In Brahui the *nominative* plural is *num* (oblique *numa*). It is abundantly evident that both *ni* and *nu* must have been current as forms of the second pronoun from a very remote era of the Dravirian formation, and that the Kol forms and their Ultraindian derivatives, so far from being really exceptional, are more distinctively and undoubtedly Dravirian than they might have been considered had they adhered to the common agentive forms of the South, and thus resembled the Tibeto-Ultraindian forms with which they are intermixed in several Gangetic and Ultraindian languages.]

The second class of pronominal affinities appear to appertain to the more archaic or pre-Indian history of the Dravirian or Draviro-Australian formation. They are very numerous if those of each pronoun be considered separately. But the formations which have both of the Dravirian pronouns are much more limited. The simple roots are found best preserved in Chinese and in some of the more archaic or preScythic languages of America. The only other system in which both occur as the principal terms is the Tibeto-Ultraindian. These facts and the distribution of the different varieties of the roots in these and in other formations, lead us to the conclusion that the system is probably the most archaic and least mixed that is now extant. The Draviro-Australian forms [stand in the same rank as the American in relation to the Chinese. Like American and proto-Scythic they belong to a secondary, harmonic, and post-positional formation, and not to a primitive and generally prepositional one like Chinese. They have definitive postfixes like Ame-rican and Scythic and the full terms are in structure more immediately allied to the Scythic. The three formations stand on a similar footing in relation both to the primary Chinese formation and to the earliest harmonic development which it received. As regards the roots in particular, the Draviro-Australian *na* or *n̄ga* and *ni* or *ngi* have a more direct and complete affinity with the Chinese *ngo* and *ni* than the pronouns of any other system.

The adjacent Tibeto-Ultraindian\* system is also Chinese and the 1st pronoun has the Draviro-Australian vowel *a*, which appears to have been early and widely prevalent, for it is found in some American languages (*nai*, *nan* &c), Korean (*nai*, *na*), Samoiede

\* In chap. IV I considered the original or integral Gangetic-Ultraindian pronoun system to be fundamentally Dravirian and distinct from Tibetan, although different languages present modifications and intermixtures. Thus the Naga was held to be a compound of Burma-Tibetan, South Ultraindian and Gangetic-Dravirian traits. The remarkable extent to which the roots and forms of different formations have been blended in the Ultraindian systems will appear when we examine the pronouns of the Mon-Anam or prepositional alliance. The publication of Mr Hodgson's East Tibetan or Sifan vocabularies has not affected the general inferences at which I had arrived, but they have made an important modification in details. The 2nd pronoun in *n* I considered to be Dravirian in all the Gangetic and Ultraindian languages in which it occurs, the Tibetan root being totally different. It now appears that the East Tibetan or Sifan 2nd pronoun is also a form of the *n* root, similar to forms found in Ultraindian and Gangetic languages that have numerous other glossarial affinities with East Tibetan. In the text I have introduced the necessary modification of my former view.

(na, but this is probably a variation of the Scythic ma), Caucasian (na, Kasi Kumuk), and Semitico-Libyan (na, also no, nu, ne, ni, that is, all the vocalic varieties of which instances occur in Chinese, Dravirian &c.) The Tibeto-Ultra-Indian 2nd pronoun has also the broad form nan, na (the West or proper Tibetan has a different root), thus directly connecting itself, not with the slender forms of the adjacent Chinese and of Draviro-Australian, but with the archaic Scythic nan, na (Ugrian). The numerous Ugrian and other Scythic and N. E. Asian affinities of the Tibeto-Ultra-Indian vocabularies render it probable that this form of the 2nd pronoun is of archaic Ugrian origin. The Dravirian slender *i* form and the *u* form are also Ugrian, *ny*, *ny*, *nyngi*, *nyñ*, *num*. The affinity between the Ostiak form *nyn* and the Draviro-Australian *nin* is obvious. The nasal second pronoun is not the prevalent Scythic, Indo-European and Semitico-Libyan, form, which is in *t*, *s* &c. If the Scythic *m* of the 1st pronoun was an archaic variety of *n*—which is found in Scythic, but as a flexion of *m*—the demonstration of the affinity of proto-Scythic, with American on the one side and with Draviro-Australian and Tibeto-Ultra-Indian on the other, and of the derivation of the common roots of all from the Chinese formation, would be complete. Although it is clear that the Draviro-Australian pronouns are not derivatives from the Tibeto-Ultra-Indian, but are to be considered as having like them an independent connection with an archaic Mid-Asiatic system—Chinese in roots and Scythic in form—it necessarily happens that the forms of the common roots sometimes so closely resemble each other that it is difficult to say what their true origin is in certain of those Indian languages which are placed at the junction of the two formations and have other affinities with both. The Tibeto-Ultra-Indian *nga* of the 1st pronoun becomes in different languages *ngo*, *ngai*, (comp. Chinese *ngai*) *ngi*, *nge*, *nye*. It is distinguished from the full and more prevalent Dravirian form, not so much by the liquid nasal (*ng* for *n*) which is also Malayalam, Kol and Australian, and appears from Chinese to have been the primary form, as by the absence of the definitive postfix. But the contracted and slender Dravirian varieties *an*, *en*, *eng*, *ing* are little distinguished from Tibeto-Ultra-Indian forms such as *ngi*, *nge*, *nye*, and it thus becomes difficult in all cases to decide whether varieties like the Mikir *ne*,

Naga ni, Bodo and Garo ang, anga &c, are Tibeto-Ultraiidian or Dravirian.\*

The chief distinction between the Tibeto-Ultraiidian and the Draviro-Australian systems consists in the combinations, agglutinations and flexions which are found in the latter. But there is also a real difference in the forms of the roots. The proper form of the 1st person in Tibeto-Ultraiidian is still *n̄ga*. This was no doubt the original Indian form also, but from a remote period in the history of Dravirian as an agglutinative formation, modifications of this form have prevailed, the principal being *na*, *ne* or *en*, *ing* and the contractions *e* and *i*. When East Tibetan languages came under the influence of Dravirian phonology similar forms might be produced in them, but in general such forms appear to be of true Dravirian origin. It is not at all probable that so great a transformation as that of *n̄ga* into *i* took place in any purely Tibetan language, while the archaic prevalence of *e* in Dravirian and its original identity with the *e* of *en*, *eng* are certified by numerous facts in different languages. When therefore we find in the obviously compound Naga system, with its flexional Dravirian traits, not only the true Tibetan forms *nga* "I" and *nang* "thou" [Gyarung 1st *nga*, 2nd *nan*-] but in the plural 1st *ni* and 2nd *ne*, and in the possessive 1st *i* and 2nd *ma*, there can be no doubt that *ni* and *i* are remnants of a Dravirian form of the 1st pronoun similar to the oblique South Dravirian, to the Kol and Limbu, and to the allied forms found in the older or prepositional languages of Ultraiidia. Other Gangetico-Ultraiidian examples

\* The comparative table of the Dravirian pronouns will show the great difficulty of distinguishing between the Dravirian and the Tibeto Ultraiidian terms. I am by no means satisfied that the classification is correct in all cases. Some of the Himalayan and Ultraiidian forms are, in mere phonetic form, as much allied to the southern as to the northern group. The principal facts that have guided me are these. The southern forms of the 1st pronoun in *i*, *e* have been produced by the incorporation of the possessive particle *i* &c. with the pronoun. They are consequently found regularly in the singular. The Tibeto-Ultraiidian forms in *i*, have been produced by the incorporation of a *cythic* and East Tibetan plural particle, *ni*, *i*, (see Horpa) with the pronoun, as is evident from this particle remaining as a postfix in several languages. The Himalayan and the allied Ultraiidian forms in *i* are consequently found regularly in the plural only. Hence I consider the singular *n̄ga* Milchanang, *inga* Milch., Limbu, to be allied to the Dravirian *ing*, *eing*, *eng*, *en* &c. and not to the plural Garo *ning*; and the plural *ni* Serpa, *ani* Limbu, *ain* Kiranti, in Murmi to be distinct from the singular *ain* Ho, *ain* Binua &c. A few forms in *e*, obviously Tibeto-Ultraiidian (Takpa, Kinawari Tibetan, Mikir) are attributable to the purely phonetic tendency to replace *a* by *e*, found in some of the Tibeto-Ultraiidian languages, as is more fully noticed in the next chapter.



of Dravirian forms occur in the Milchanang and Limbu inga (identical with Kol and Mon-Anam forms), Garo ning and Singpho i (both Pl.), Mikir ne, Nagaung Naga nyi, Khari ni and the Naga forms noticed in a previous page.\* The Angami a [Manyak also] and the Gangetico-Ultraiindian ang (Bodo, Garo), angka Kiranti are probably East Tibetan. The 2nd pronoun is more strongly distinguished in the two systems by its radical vowel, which in Draviro-Australian is i as in Chinese, while in Tibeto-Ultraiindian it is a, as in some of the archaic Scythic forms. The Ultraiindian members of the Tibeto-Ultraiindian family show other Dravirian affinities in their pronominal systems besides the occasional adoption or retention of Indian forms of the roots. Dravirian plurals, possessives and other particles occur in several languages, Bodo, Dhimal, Naga &c (see chap. IV.) Not only the common Dravirian plurals in l &c are found, but, as we have seen, the pronominal m.

Amongst the primary affinities of the S. E. Asian languages and Dravirian may be included the plural *m* and the possessive in *i*, *ni* &c. The former is Chinese -mun, -men, -me, -mei, -pei and the latter is Tibetan (yi), Manyak (i), Burman (i), Limbu (in), Bodo and Garo (ni), as well as Scythic, Semitico-Libyan (i) Zimbabwian (i) &c. The Chinese traits in the Himalayan and Ultraiindian languages present great difficulties. Some are of comparatively recent East Tibetan origin and in Ultraiindia even more modern. Others appear to belong to a connection as archaic as that between Australian and Chinese roots.

The Draviro-Australian or archaic Indo-Asonesian pronominal system with its numerous distinct elements and combinations, appears to be more ancient or less impaired than most of the systems of other harmonic formations of the Old World. From its general structure it must be considered as cognate with proto-Scythic or Scythico-American. It is richer than Scythic, which has neither sexual forms nor any plurals save the ordinary generic ones, with the absolute "we" (formed as in Dravirian), although the Scythic power of combining such elements as the formation possesses is similar to the Draviro-Australian, and the position of the subordinate definitives is the same. In some of the

\* [Brahui i.]

Scythic languages a dual is found (*ante* vol. viii. p. 70),\* and as it is preserved in Kol, Australian &c. it was probably common to the archaic Scythic and Indo-Asonesian systems. Double plurals occur in Scythic as in Dravirian. The transition forms of Kol and Australian are absent, but the Fin reflexive forms may be considered as analogous remnants of an earlier and richer condition of the Scythic system, when it had departed less from the Semitico-African types on the one side and the American on the other. The Scythic, Caucasian and Africo-Semitic habit of postfixing the pronoun possessively is preserved in the Kol pronominal postfixes to names of kindred and in the ordinary Dravirian persons of the verbs† (*ante* vol. viii., p. 58). The Scythic postfixed *n* definitive of the singular is Draviro-Australian. The plural definitives in *l*, *r*, are also common to the two formations‡ but the regular *m* plurals—flexional and postfixal—of Dravirian are not Scythic. In some Ugrian languages the 1st pronoun has the *n* form in the singular and *m* (the root) in the plural, the former being evidently the definitive postfix left on the elision of the root; and as *m* does not occur in the plural of the 2nd pronoun it cannot be considered that the Dravirian plural *m* has any Scythic affinity.§ The Scythic plural def. *k* is found in Gond (*-k*, *-nk*, *-g*) and Kol (*ko*). In the Gond pronouns, as in some substantives, it is common and this is also the case in some Ugrian systems (*nanh* Wogul) and in Semitico-Libyan. Combined with the *l*, *r* plural it is found in most of the Dravirian languages (*-kal*, *-gal*, *-kulu*, *-kan*, &c., so *-galai* Dhim., *-khala*,

\* [It would appear that the dual is not limited to Lap for according to Castrén it is found in Ostiak and Samoied also. It is formed by the guttural postfix *ga*, *ka* &c., which Castrén derives from *ka* or *ki* "also." But is it not identical with the plural guttural particle (*ante* vol. viii. pp. 56, 70)? "In the Irishian dialects of the Ostiakian, in Laponian and Kamassian nouns and adjectives have lost the dual, and pronouns and verbs only have retained it. In the Samoied-Ostiakian it is the pronouns that have lost the dual." Prof. Max Muller in Bunsen's *Philosophy of Universal History*, vol. ii. 461].

† The Asonesian habit of postfixing the pronouns possessively is mainly referable to a Semitico-Libyan source, through Malagasy.

‡ The Dravirian plurals in *nar*, *mar*, are probably connected with the Scythic *nar*, *lar* (Mongol, Turkish). Those in *ra*, *la* are also African, and in Asonesia are thus common to the Dravirian and to the Malagasy derivate formations.

§ The traces of a labial plural in Scythic are too obscure to be relied on. The Lap. has *p*, *b*, as a plural postfix, also dual, and in the 1st pron. *-ne*, *-n* is dual. These phonetic affinities with Kol do not appear to me to indicate any glossarial connection. The dual *n* of the 1st pronoun is evidently the ordinary Ugrian flexion of the pronominal root *m*, or it is the definitive left as its representative on contraction as in the Hungarian separate form (*en*).

-kara Naga, combinations resembling the Samoiede, N. E. Asian and American gada, ganda &c. The Scythic systems in their vocalic flexional plurals and some other traits, are rather Indo-European, Semitico-Libyan and Zimbian than Dravirian in their affinities. But we have seen that Dravirian has some traces of vocalic flexion in the change of the agentive a, o of the 1st pronoun to e in the possessive, and in that of i to u in the 2nd.\*

The two systems cannot be referred to the same formation, and the affinities, great as they are, must be considered as collateral. They point to a common source, to an archaic postpositional formation at once more crude and more redundant in forms and combinations than Ugrian, Dravirian or even Australian.

The Indo-European system in its possession of a dual number and of sexual definitive postfixes and flexions which extend to the 3rd pronoun, but not to the 1st and 2nd, resembles Draviro-Australian in some of the characters in which it is richer than Scythic. Dravirian in its retention of the sex distinction in the 3rd person of verbs is less abraded than Indo-European. In other respects the latter system is, in its basis form, analogous in roots and structure to the Scythic, although somewhat richer, and has no general affinities with Draviro-Australian save what are observable in Scythic. It is more concreted and flexional than either, although similar flexions and irregularities occur in all three.

The Semitico-Libyan system like the Indo-European, has dual and sexual elements, and in the latter it is richer than either, for it uses them with the 2nd pronoun, and there are even traces of them in the first. The union between the pronominal elements and words used assertively, is more complex than in Indo-European or Scythic, as it has objective or transition forms like Draviro-Australian. The root of the 1st pronoun is Draviro-Australian, but that of the 2nd is not. The postfixed definitive k of the 1st person assimilates the term to the Gond forms in k (nak &c.) The Gond -k although now used in the singular is properly plural and Scythic, while the Semitico-Libyan is generally singular and probably masculine, but in Hottentot it is plural both in the 1st

\* The Ugro-Fin definitive of the singular changes its vowel to u in the oblique cases (e. g. *mi-na*, *mi-nu*). This may be related to the Dravirian change of the root-vowel i to u in some possessives and plurals. In many of the Semitico-African languages u is plural.

and 2nd pronouns. The fact of both formations having *m* as a plural, \* *i* (variable to *e*) as a possessive, and *u* as a plural element can hardly be accidental, but the affinity belongs to the most archaic period in the history of the two formations, like others that will be noticed afterwards. The common radical elements, with the agglutinative and flexional tendencies under which both formations have been developed, have produced several coincidences amongst the various forms which have concentered in both. Thus the possessive *i* or *e* represents the 1st pronoun in several Semitico-Libyan languages as a verb postfix or prefix. The Mahrah pl. of the 1st person *abu* (comp. Hausa *mu*) is similar to Dravirian forms (*abu* pl. absolute of Kol, &c.)† The Dravirian formation has radical affinities with the archaic ones of S. W. Asia, where it departs from S. E. Asian and Scythic in roots or forms, and although these identical pronominal terms have been independently formed in both formations, the coincidence cannot be considered as purely accidental when it rests on a community of roots and, to a certain extent, of ideologic and phonetic tendency also.

The Caucasian pronominal systems preserve affinities to those of formations in nearly all the great stages of development. The roots are varied and mixed. The Iron in, an, on sing. of the 1st pronoun and the Kasi Kumuk *na* are not Scythico-Iranian but Semitico-Libyan, and Draviro-Australian. The plural *ma*, *am*, *ab* is also phonetically, Semitico-Libyan and Dravirian, but it does not occur in the 2nd pron. and is probably Scythic glossarially. The root of the 2nd pronoun *di* &c. is ultimately a variety of the Chino-Dravirian *ni* but more immediately connected with Scythic &c. Caucasian has transition forms and attaches the pronoun possessively and assertively to other words, but it wants the complex duals and plurals as well as sex definitives or flexions. The nature and historical import of the affinities between Caucasian and Dravirian are considered elsewhere.

\* As a definitive postfix the labial is *neuter* and sometimes feminine in Dravirian as in Sanskrit. In Semitico-Libyan it is plural and *masc.*

† The Semitic plural and dual (Arabic) *n* definitive may possibly be connected with the dual *n* of Kol. In Semitico-Libyan languages it is variable to *d*, *l*, *r*, *nd*, *nt*, &c. and appears to be radically the same as the Scythic and Draviro-Australian plural element in *l*, *r*. In Gangetico-Ultratrainian languages *li* becomes *di*, *ni*, *nin*, *ning*, &c. Horpa also has *ni*. In the purer Scythic languages the reduplicated *lar*, *ler*, of Turkish becomes *nar*, *ner* in Mongol. *N* forms are also found in Yeniseian (*n*, *ng*,) and Yukahiri (*l*, *n*,) (*ante*, vol. viii. p. 55 56.)

Euskarian in the Scythic, Caucasian and Semitico-Libyan characters of its pronominal system has necessarily Draviro-Australian affinities also. The transition tendency is archaic Semitico-Libyan, Georgian, Zimbian, Australian, and American. The roots are varied and *n* is found in both the 1st and 2nd pronouns, but without indicating any special connection with Draviro-Australian.

The Zimbian pronominal system is in many respects even richer than the Australian, but the roots are Scythic and Caucaso-Yeniseian combined with Semitico-Libyan and numerous as the general affinities are, there are no special ones with Draviro-Australian.

It is only in American that we find examples at once of a free and multiform combination of pronominal elements similar to the earlier Draviro-Asonesian, and of systems which, with this archaic richness of terms, preserve the Chino-Dravirian roots. In some American languages the extent to which pronouns combine with each other and with different definitives is still greater than in the outlying or insular members of the Draviro-Australian formation. As traces of a similar primitive freedom of combination, are found in most of the harmonic Aso-African systems, it is probable that a pronominal development analogous to the American was the ultimate source of the Scythico-Iranian, Semitico-African &c. and that the remotest and most sequestered branch of the Indo-Asonesian formation has remained more faithful to it than the exposed continental systems.

The close connection between the general structure and ideology of the Dravirian and Scythic formations and the large glossarial affinity give additional importance to the fact that the Dravirian pronouns are not the predominant Scythic ones. The prevalent Scythic 1st person is a labial, *ma*, *mi*, *bi*, &c, and the 2nd a dental, *sa*, *si*, *ti*. These are Iranian and Caucasian, the 1st being also found in Zimbian and the 2nd in Semitico-Libyan, N. E. Asiatic, and American languages. Both are evidently very archaic, but their diffusion over the Iranian, Scythic, and connected African area must have been later than the spread of the Draviro-Australian and allied American terms which centre in the Chinese. The fact of the latter being found in widely separated and outlying ethnic provinces—America, N. E. Asia, Africa, S. India, Australia—

combined with that of the Scythic and Iranian being the latest of the great migratory races, establish a high antiquity for the movements which dispersed the Dravirian pronouns on all sides from their probable centre in S. W. Asia.

The Chinese is probably the most ancient integral formation to which they can be referred. They appear to have been diffused over a large portion of Asia and Africa as well as over America prior to the rise of the dominant historical races, and their spread over India, Ultraindia and Asonesia in the era of Draviro-Australian civilization, now represented by the Australians, throws light on the ethnic condition of S. W. Asia at the period when a civilization of this character was connected with the most influential and diffusive formation. The roots only are Chinese. The Dravirian and Asonesian forms of the pronouns shew that the languages of this formation had already acquired a harmonic and postfixual character. The preservation of the same roots in American, N. E. Asiatic, Scythic and African languages and the generally Scythic structure of Dravirian, lead to the inference that they were associated in Upper Asia with an ideology of the Scythic kind before they spread to India and the farther east.

The general conclusion is that the Draviro-Australian pronominal system is not an offshoot from Scythic proper or from any of the other Aso-African systems, but is a remnant of the proto-Scythic era of the harmonic development, and a link between the Scythic and American ideologies and between Chinese and American. In American the crude and pleonastic ideology of the early monosyllabic stage is preserved under a harmonic and agglomerative phonology. In the Australian condition of Draviro-Australian the pronoun system retains the same combination to a large extent. Traces of a similar crude and elaborate system are found in the other Aso-African formations, and they all present evidences in flexions, contractions and irregularities of different kinds, of having fallen away from a condition more elaborate and consistent in terms and forms. Although Scythic is amongst the most decayed and simple of these systems, some of its members which retain other American traits also, are possessed of vestiges of such a condition, while its affinities to Indo-European and other systems which preserve similar and more numerous vestiges,

and the highly agglomerative character of the formation, leave no doubt that in one of its early stages the proto-Scythic pronominal combinations were as crude and numerous as the American or Australian. The Dravido-Australian system may be considered as proto-Scythic in its general structure and character, for even in Upper Asia that type is not limited to languages which possess the proper Scythic pronouns.

*B. Definitives, (including 3rd Pronouns, Possessives and Directives.)*

The possessives and directives are merely definitives, and as most formations possess nearly the whole range of archaic definitives, the comparison of isolated applications of them can seldom lead to specific ethnic results.\*

The Dravirian and Australian labial definitive *pa*, *wa* &c is Tibeto-Ultrindian, Scythic, N. E. Asian (Kamschatkan), Caucasian, African, Celtic (Welsh *ve*, *vo* &c); and it passes into *ba*, *va*, *ma*, *am*, *um* &c &c.† In Tibeto-Himalayan languages it has a qualitative power, which is not found in Dravirian.‡

Ta, da (with vocalic variations) is almost universal as a definitive, and it passes through the surd form into *ka*, *ga* on the one side and through the sonant into *la*, *ra*, *na* on the other.§

In the form *ni*, *in*, &c it is the principal Dravirian possessive, and this is probably identical with the Tibeto-Ultrindian and Scythic poss. *ni*. The nasal possessive *in*, *yin*, *n*, *i* &c is also Semitico-Libyan and Indo-European. The Turkish reduplicated forms *nin*, *nun*, *nen*, *ning* are found in Asonesia as well as the simple form *ni*. The same particle occurs in some of the Irano-European languages as an archaic possessive, as in the 2nd personal pronoun in Zend *ma-na* (in Sanskrit euphonically *ma-ma*), Gothic *mei-na*, &c. In Guzerati both the simple and reduplicated

\* See the remarks on this subject in various preceding passages, and in particular those on the Scythic definitives &c (*ante* viii, 60 to 64). The reader may also refer to the same place for examples of the wide prevalence of most of the definitives found in Dravirian, and for indications of Scythic affinities.

† See vol. viii, p. 63.

‡ But Gond exceptionally has *wa*, 1st pron. *no-wa* sing., *mo-wa-n* pl., 2nd pron. *ni-wa* sing., *mi-wa-n* pl. This form is Tibetan through Gangetic. Magar 1st pron. *ngo-u*, (root vowel of *nga* modified by that of postf.); 2nd *nu-wo* (*ib*) 3rd, *hoch-u* (nom. *hos*.) In the plural the full form *um* is used, corresponding with the Gurung *mo*, the latter however being plural not simply poss.

§ *Ante* vol. viii, p. 62.

forms are found, *ni*, *no*, *nun*. The same possessive is found in several of the Gangetic languages including Limbu, (*in*) and Bodo (*ni*). \* Of the other Himalayan possessives, the most common, found also in Male and Uraon, *ho*, *he*, *gi*, &c is Tibetan and Chinese and the rarer *ti*, *chi*, *so*, *sei*, *sa* &c is Chinese (*ti*, *chi* &c), (see the Table).

The transitive use of *ka*, *ku*, *tu*, *du* is very general (Iranian, Irano-Gangetic, (Hindi &c), Siamese, Chinese, Scythic, African, Asonesian &c, including Australian). But nearly all the definitives are so used.

The Dravirian *na*, *an*, *nu* &c used as a definitive with pronouns &c, is applied in the same mode, and also as a def. prefix, in Semitic-African and Asonesian languages. As a def.—separate, prefixed or postfixed—it is found also in Iranian, Semitic, Scythic and American languages. The form in *r*, *l*, is also common, and in some African, Asiatic and American languages it assumes peculiar forms such as *il* (S. African, Caucasian, N. E. Asian, American). The common masculine and inanimate or neuter 3rd pronoun is the dental definitive *da*, *du*, *thu* &c.

The absence of the widely prevalent sibilant or aspirate definitive might be considered as a peculiarity of the Dravirian formation, but it is frequently only a modification of the dental as in the Scythic and Semitic 3rd pronoun in *ta*, *sa* &c.

The Toda *athu*, Male *ath*, shews the dental becoming aspirated or half sibilant. In the Uraon *as-an* (*an* is a postf.) the change is complete. The Magar *hos* is the same particle, and in the Sunwar *havi* it appears to be combined with a different one. The Burman *thu*, *su* and the Murmi *the*, Gurung and Manyak *thi*, Naga *ate* are variations of the same particle, probably of Chinese derivation. The root is so widely spread that it is hardly safe to draw any conclusions as to the relations which its various forms may indicate. The resemblance between the Dravirian and Chinese pronominal roots is completed by the Chinese 3rd pr. *tha*, *thi* which however has representatives in most of the formations of the old world.

The Dravirian *va*, *ve*, *vu*, of the 3rd pronoun (Australian *ba*, *pa*), is the same as the common *pa*, *bu*, *wa*, *u* &c. of the Tibeto-Ultranian languages, and in both formations is directly connected

\* *Ante*, vol. viii, p. 61. See the Table.



with the N. E. Asian and Scythic labial definitive and assertive. It is also Caucasian, Semitico-African &c. In Dravirian it has a generic personal application, the postfix *n* rendering it masc. and the postfix *l* fem.,\* but it also occurs as a common def. element. The labial as a postfix is usually neuter and sometimes fem. and in Tuluva it is the 3rd pron. neuter. The primitive form was probably the feminine flexion of the labial which also came to include neuter. [See Tibetan, Anam &c.]

The objective use of the neuter *m* is common to Dravirian with Indo-European. It is also objective in Caucasian and Scythic.

Besides the dental and labial 3rd pronoun, Dravirian has a vocalic one *i*, *ye*, *yi*, found also in Kol. The more common Kol 3rd pronoun *ni* is also demonstrative and it is found with both functions and as a generic definitive element in many other formations, Scythic, Africo-Semitic, Malagasy, Asonesian. As a demonstrative it is Scythic, Tibeto-Ultraindian.

The vowels are used as definitives in Dravirian, chiefly prefixed to other particles. All the 3rd pronouns above referred to take them (*a*-va, *a*-van, *a*-du, *a*-ye, *a*-i, *i*-ni &c. &c). In some Dravirian demonstratives and locatives *i* has a proximate and *a* a remote force. Similar applications of the vowels are found in Scythic, Indo-European, Semitico-African, Malagasy, Asonesian &c.

The affinities of the Dravirian possessive and directive system are too numerous and complicated to be referred to the influence of any other existing formation. They support its claim to an independent place amongst the most archaic of the harmonic formations. The general character both in roots and structure is Scythic but with a leaning in some points to Semitico-Libyan and Caucasian—which again are Scythic in many fundamental traits. The Tibeto-Ultraindian affinities in roots are in general coincident with the Scythic or with Chinese.

The indeterminate and variable functions of several of the definitives have been adverted to in connection with the pronouns. A similar confusion takes place in all agglutinative languages in proportion to the number of well separated dialects that exist or to the force of those causes that evolve dialectic changes in each

\* Traces of a similar archaic application of these postfixes are found in Caucasian.

language with the progress of time. In the Semitico-Libyan and Indo-European formations we meet with facts of a like kind. The same element may become singular, dual, plural, masculine, feminine, neuter, possessive, objective &c. in different dialects and even in different positions.

### *Definitive Postfixes.*

The use of definitive postfixes belongs to the earliest stage of the inversive formation and cannot be said to be even confined to it, for some prepositional languages postplace the definitive or demonstrative, as Siamese and most of the Indonesian languages. In the Africo-Semitic prepositional languages definitives are common as postfixes, and they occur in very archaic words, as in pronouns. Substantive terms are, to a great extent, composed of a root and a definitive postfix in the Scythic and North Asian, in many American and African, in the Caucasian and Indo-European languages and even in Semitico-Libyan.

The Dravido-Australian, unlike the Scythic and Caucasian formations, distinguishes the gender by some of its postfixes, in this respect possessing an Irano-Semitic character. The Dravirian inanimate or neuter posfix *am*, *um*, *nu* &c is identical with the Indo-European *m*, *am* &c of the objective which in *neuter* words is used as the nominative. This usage is Dravirian also. In Semitico-Libyan the labial has a masc. and plural force, and in some languages it is common or neuter. The feminine *i*, *a*, of Dravirian are likewise Semitico-Libyan and Indo-European feminine terminals. The masc. (sometimes neuter) power of *-n*, *d* and the fem. power of *-l* are not Indo-European or Semitico-Libyan, but the roots are preserved with the same powers in Caucasian words for "father" and "mother." All the Dravirian postfixes are found in Scythic, Caucasian and Semitico-African vocabularies.

It is deserving of remark that the wide spread definitive in *s* which is a common Semitico-Libyan, Indo-European and Scythic postfix to substantives does not occur as a Dravirian postfix unless *t*, *d*, *zh*, *j* may be taken to represent it. In the Scythic languages *s* frequently becomes *t* and both take the sonant forms *z*, *d* which countenances this suggestion.

The vocalic prefixes common in Scythic and African languages, and in some of the Indo-European (e. g. Greek) are rare but not

entirely absent in Dravirian as has already been remarked. Their archaic use is evinced by the various forms of the 3rd pronoun and demonstratives. But it must be observed that in the vocabulary the prefixal vowel is frequently a contraction of the root or of its first syllable, and that the general structure of the words is Scythic more than Caucasian or Semitico-Libyan, the vocables of those formations being comparatively curt and elliptic and more often involving a prefix or infix.\*

In the Dravirian vocabularies the definitives are common but they appear to have lost their sexual functions in most cases. As they have also plural functions they may indicate number rather than gender in many words, most words being primarily collective or plural and not singular. *Al, l, lu, ru*, the feminine definitive, is common. The masculine *-an, -na, -n* occurs less frequently, but as the lax and flexile phonology renders the *n* easily transmutable into *d*, or *l* on the one side and into *m* on the other, and as in some dialects *d* is the current masc. form, postfixes that now appear to be phonetically fem. or neuter may originally have been masculine. The neuter (sometime feminine) labial occurs under varied form *-va, -av, -v, -vu, -pu, -p, -ba, -b, -ma, -mu, -am, -m* &c. &c. The neuter definitive *-du, -da, -di, -thi* is much less common. The guttural *-ka, -ga, -gu* &c. is comparatively rare save in Gond. As in the dialectic groups of other formations different glossaries affect different postfixes or forms of postfixes, showing that a separation into dialects preceded the concretionary stage. At the same time many roots have the same postfix in all or several of the dialects, in some cases by the direct transmission from the pre-dialectic period and in others from the dissemination of the form of one dialect amongst others.

\* Bopp has remarked that Sanskrit, Pali and Prakrit in combining the final vowels of the primary forms with case-suffixes beginning with a vowel interpose *n* euphonically, a phenomenon which is almost limited to this group of the Iranian languages, in which, also, it is most frequently employed by the neuter gender, less so by the masculine and most rarely by the feminine (Comp. Gram. I, § 133). In the highly euphonic Dravirian languages consonants are interposed, *an* becoming *nam, ram, dam, tam* &c, and it is possible that the Sanskritic languages derived this peculiarity from the influence of the languages of the Dravirian formation with which it came in contact in the basins of the Indus and Ganges. I do not here consider the question whether the agreement in these particles between Dravirian and Iranian was a consequence of the advance of the latter into the province of the former or of an earlier cause. The definitive is a common one. It occurs as a prefix in the Africo-Asonesian languages and as a postfix in the Caucasian and Ugrian, and it is evidently the common labial definitive.

Am, the inanimate or neuter definitive, is common in the Southern vocabulary, Tamil-Malayalam; *lu, nu, du, tu* &c., variations of *lu*, in Telugu, Karnataka and Tuluva. Where Tamil has *pu, bu*, Malayalam has often *ba*, Telugu *va* and Karnat. *vu*. *Vi* is comparatively rare. It sometimes becomes *bi, mi, b*. The final vowels vary greatly. Tamil affects *ei*, Malayalam *a*, Telugu and Karnataka *u* and *i*, Tuluva *e*, while Tudava generally dispenses with the vowel. In the purer Dravirian languages of the Vindyan group, Gond, Uraon and Male, similar postfixes occur. They are distinguished by the frequent use of *k, ka, kka*. Double definitives sometimes occur, and they are probably to be explained in the same way as the double prefixes of Kasia and other languages. But in a few cases one of the definitives appears to have been infixed. Thus *tolu* "skin" is also *toralu*, and *potu* "sun" is also *polutu*.

The definitives which are used as plurals have been already considered. The Chinese and Tibeto-Ultraindian affinities of the labial are shown in the Table.\* The more remote were adverted to in discussing the pronouns.

The common plurals in *kal, gal, kulu, n̄gal, nar, kan, la, al, r, ir, lu, ru, &c.* and *k* are Scythic, East Tibetan, Ultraindian and Gangetic.\*

The Scythic, East Tibetan, Ultraindian and Gangetic plurals in *ni, in, i* (flexional in several languages) although radically identical with the Dravirian *ir, la, &c.* distinguishes the systems in which it occurs both from West Tibetan (Bhotian) and Dravirian.\*

The postfixed definitives belong to the foundation of the formation, and their forms and variations carry it back to an era in which Dravirian like Scythic and the other harmonic Aso-African formations had only partially concreted these particles with the substantial roots. In many instances where the roots are common to Dravirian with some of these formations, the definitives vary. (See the remarks on the Caucasian definitives, *ante*, vol. viii. p. 34.) In the comparative paucity of prefixed definitives Dravirian is Scythic more than N. E. Asian, Caucasian, Semitico-Libyan, Tibeto-Ultraindian or Asonesian.

\* See Table of Plural Particles.

The most marked feature of the Dravirian system of pronouns and particles is its combination of Chinese and Tibetan roots with a Scythic phonology and structure and with some Scythic roots that are not Chinese. In its cruder and less agglutinative archaic form, of which Australian is partially a representative, its true place appears to be between Chinese and Scythic. The radical affinities of the system with Tibeto-Ultraindian are close and unequivocal. In roots the two are the same, and both are Scythico-Chinese, and much more Chinese than Scythic. The Dravirian and Australian forms do not appear to have been directly derived from Tibeto-Ultraindian. They have several marks of independent derivation from an E. Asiatic source, Chinese and Scythic. The historical connection with Chinese must be of extreme antiquity and altogether pre-Indian, for the general character of Draviro-Australian is inconsistent with the supposition that the Chinese formation itself was the first to spread into India and become the basis of the Dravirian. This would involve the assumption that *before* the barbarous Draviro-Australians spread to Asonesia an original Chinese formation had been modified by an intrusive Scythic one in India. The connection is mainly with the Kwan-hwa or proper N. E. Chinese and not with the western. The supposition that Dravirian preceded Tibetan in Tibet and is simply the product of the oldest Scythico-Chinese current from Tibet into India, Ultraindia and Asonesia, would make the close connection with Tibeto-Ultraindian a direct historical one, for the latter would thus be in great measure a form of the archaic pre-Indian Dravirian in which, after the separation of Dravirian, the Chinese element had increased from contact with Kwan-hwa and the Scythic proportionally diminished. But the Tibeto-Ultraindian languages themselves oppose strong facts in phonology, glossary and ideology to such a hypothesis, and Dravirian has direct western affinities—Caucaso-African, Iranian and Ugrian—which would of themselves render it more probable that the formation was transmitted to India round the Tibetan region to the westward, and not across it. The affinities between the Draviro-Australian and the Tibeto-Ultraindian systems are the necessary result of their both being Scythico-Chinese, but Scythic and Chinese are each of vast

antiquity and appear to have all along been in contact, so that mixed formations must always have existed and been in the course of production. The individuality both of Dravido-Australian and of Tibeto-Ultraindian not only when compared with each other, but with Chinese and the existing forms of Scythic, is so strongly marked, as to claim for each an independent existence from the most remote periods of Scythic and even of proto-Scythic history.

At the same time the Tibetan languages have been from era to era receiving new impressions both from Chinese and from more than one branch of Scythic; and the eastern and northern dialects have been more exposed to these influences than the western and southern. The Tibetan languages, thus perennially modified, have, in turn, been carried into the Dravirian province from era to era, supplanting and modifying the Dravirian languages, so that—leaving the Arian and the direct Chino-Ultraindian elements out of view—India and Ultraindia now present 1st Dravirian languages, little if at all Tibetanised, but in which some Tibeto-Ultraindian elements probably exist although difficult to discriminate (South Dravirian), 2nd Dravirian modified by Tibetan (Kol and, much more slightly, Male, Uraon, Gond), 3rd Tibetan in different forms (Bhotian or western, Si-fan or eastern) and of different eras and varieties in each form, with much blending amongst themselves, as well as with Mon-Anam and Chinese, and with a variable but comparatively weak Dravirian element, difficult to discriminate in most cases from that archaic community of roots to which we have adverted and from Tibetan having a Scythic harmonic tendency. In the Gangetic languages for example, an agglutinative and harmonic character may be either Scythic through East Tibetan or Scythic though Dravirian. The facts and general probabilities of every case must give the decision, where decision is possible.

The three existing branches of the Dravido-Asonesian family—the Dravirian proper, the Kol and the Australian—have each had an independent development, and been exposed to widely different influences, internal and external, from a very remote period. The Australian pronominal system is the most crude, redundant and agglomerative, and the least flexional. The systems, both of

Kol and Dravirian proper are more agglutinative, elliptic, and flexional, and their forms and particles are more confused and in dialects have wandered more from each other and from the original system. While Kol retains some forms that have disappeared in Dravirian proper, the pronouns have lost the primary agentive or separate forms which both the other branches preserve. In most respects the system is that of an impoverished dialect of Dravirian proper formed at an early stage of the latter, and since modified by separation, and by the influence of Ultraindian formations. The breaking up of the original system is so considerable that it was probably produced by the contact of the northern Dravirians with a race having a different pronominal ideology. It is a dialect that could not have arisen so long as the native Dravirian idiom remained strong and pure, and is of the kind that grows up when a race becomes closely connected and intermingled with a foreign one. The range of the Kol terms to the eastward renders it probable that this modified system was not formed until the earlier Ultraindian tribes occupied the lower basin of the Ganges, blended with the Dravirian aborigines and produced a mixed lower Gangetic race and language. The Kol system must have arisen in one community which ultimately became predominant in Bengal, spread over a portion of the proper Dravirian highlands on the right bank of the Ganges and carried its pronouns with its numerals over Ultraindia.

Each of the purer North Dravirian languages—Male, Uraon and Gond—has also had its pronominal, its definitive or its numeral system slightly disturbed by the North Gangetic branch of the Tibeto-Ultraindian family or by the previously modified Lower Gangetic or Kol system. Thus some of the Kol numerals are found in Gond dialects. Gond has received a Tibeto-Gangetic possessive particle into its pronominal system, and like Kol it uses the plural labial in the singular of its 2nd pronoun, while the general irregularities of its pronominal system speak to the shock it has received from the presence of foreign systems or of a foreign element in the languages of adjacent and partially intermixed tribes. Uraon and Male have adopted a Tibeto-Gangetic possessive.

The annexed Tables show the glossarial affinities of the Dra-

virian pronominal roots, and of the possessive and plural particles. The other directives are so much interchanged and confused with possessives in Dravirian as in other formations that I do not give tables of them.

TABLE SHOWING THE GENERAL RANGE IN THE OLD WORLD  
OF THE PRONOUNS FOUND IN DRAVIRIAN.

1ST PRONOUN ("I")

I. CHINESE.

n̄gó	Kwan-hwa, Quang-tung
'n̄gu	Shang-hai ( <i>pl. n̄gu ni, or ni, I + you</i> )
ngai	Kek (Cheo-hu)
ngai	"
ngoi	"
gua	Hok-kien, Hai-lam
wo, wu	Kwan-hwa
ù	Tie-chu
ua	"
wa	"
nung	(occasional)
yu	Kwan-hwa

II. DRAVIRO-AUSTRALIAN.

A. *Australian and other Asonesian.*

nga-nya	W. Australian
nga-toa	N. S. Wales
nga-ii	S. Australian
nga-pe	Encounter Bay
nga-tu	Kowrarega
na-ng	Tobi
na-k	Pelew
ngo	Rotuma
ngou	"

B. *Dravirian proper.*

na-na	Gond, Karnataka ( <i>poss.</i> ) Brahui ( <i>poss.</i> )
na-n	Tamil, Kurgi, Brahui ( <i>pl.</i> )
nya-n	Malayalam
nya-n	"
nga-n	"



na-nu	Karnataka
a-n	Kar. Anc., Gond ( <i>ag. postf.</i> )
a	Gond ( <i>ag. postf.</i> )
ya-nu	Tuluva
ya-n	Tamil
na-k	Gond
na	Telugu ( <i>poss. obl.</i> )
nc-nu	Telugu
e-na	Tam. ( <i>in obj. obl.</i> ), Mal. ( <i>in obl.</i> ), Karn. ( <i>poss. obj.</i> ), Kurgi ( <i>ib.</i> ), Toda ( <i>ib.</i> )
e-nu	Kam. ( <i>ag. postf.</i> )
e-ne	Karn. ( <i>ag. postf. in present</i> )
en-na	Kurgi ( <i>poss. obj.</i> )
en-an	Uraon
en-re	Mal. ( <i>poss. -re or -de.</i> )
e-n	Tuluva, Male, Tamil ( <i>poss., ag. postf.</i> ) Toda ( <i>ag. postf.</i> ), Uraon ( <i>pl.</i> )
e-ng	Kurgi ( <i>pl.</i> )
in-ike	Malayalam ( <i>dat.</i> )
e	Karn. ( <i>ag. postf. in verb abs. past tense</i> ), Tu- luva ( <i>ib.</i> )
i	Brahui
o-ne	Tod.
wo-n	"
o-ng	Male ( <i>poss. with -ki</i> )
o-m	Male ( <i>pl.</i> ), Tamil ( <i>pl. ag. postf.</i> )
no-wa	Gond ( <i>poss.; in pl. mo-wan</i> )
o	Tuluva ( <i>pl. ag. postf. in verb. abs., past tense</i> )
C.	Kol.
ing	Bhumij, Mundala, Ho
inge	Sontal
eing	Ho
aing	Ho
D.	Gangetic and Ultraindian.
inga	Limbu, Milchanang
ninga	Milchanang
i	Namsangya Naga ( <i>poss.</i> )
eng	Kambojan, Chong.

eing	Sĩmang
ein	"
en	"
ain	Bĩnua
oin	"
yun	"
oei	Mon
oe	"
ye	Sĩmang
eyu	Bĩnua

*E. Asonesian.*

aing	Sunda
ani	Timor
<i>nyu-n̄ga</i>	Sumba
anare	Belo
<i>ba-nian</i>	Kissa
ina	Formosa

III. TIBETO-ULTRAINDIAN.

<i>n̄ga</i>	Tibetan, Horpa, Gyarung, Naga (Namsang.), Kasia, Burman, Murmi, Gurung, Magar, Serpa.
<i>n̄ga-yo</i>	Gyarung (double form, yo is Chinese,)
<i>na</i>	Tibetan
<i>n̄gya</i>	"
<i>n̄gai</i>	Burman ( <i>poss.</i> ), Singpho, Tengsa, Naga ( <i>poss.</i> or <i>pl.</i> forms, Tengsa has a in <i>pl.</i> , the Sing- pho <i>pl.</i> has i; a mixed system; the 2nd pron. in Singpho has both nang and ni in <i>sing.</i> , ni in <i>pl.</i> )
<i>nyi</i>	Naugaung Naga ( <i>pl.</i> annok, mixed system)
<i>ni</i>	Khari Naga, ( <i>pl.</i> akan, mixed system)
<i>aũg</i>	Bodo, Garo, Naga ( <i>postf.</i> ), Kiranti ( <i>poss.</i> ang <i>ko</i> )
<i>an</i>	Deoria Chutia
<i>aũg-a</i>	Garo
<i>anka</i>	Kiranti (a modification of <i>aũga</i> or two roots combined, see <i>ka infra</i> )
<i>a</i>	Manyak, Naga (Angami), Mikir ( <i>pl.</i> )

n̄ge	Takpa, Singpho ( <i>obl.</i> )
nye	"
ne	Mikir, Tunglhu ( <i>pl.</i> )
net	Ladak and Kinawari Tibetan ( <i>pl.</i> )
eneshe	Tibarkhad ( <i>pl.</i> )
eneatung	" "
i	" ( <i>ag. postf.</i> )
ni	Serpa ( <i>in pl.</i> )
ani	Limbu ( <i>in pl.</i> )
ainko	Kiranti ( <i>poss. pl.</i> )
in-na	Murmi ( <i>poss. pl.</i> )
n̄gi	Gurūng ( <i>in pl.</i> ), Kasia ( <i>pl.</i> )
ning	Garō ( <i>pl.</i> )
ni-ma	Namsangya Naga ( <i>pl.</i> )
ni-khala	Tablung Naga ( <i>pl.</i> )
yo	Gyarung ( <i>pl.</i> a Chinese pron.)
i	Singpho ( <i>pl.</i> )
ngo	Abor-Miri
ong	Lau ( <i>poss. in Laos</i> )
ka	Thochu, Dhimal (a var. of n̄ga), Lepcha ( <i>in poss. sing. kaseusa and in pl. kan-kurik.</i> Comp. Kiranti an-kan ( <i>pl.</i> )
go	Lepcha, Sunwar
gu	Milchanang, Sumchu
gi	Tiberkad
geo	"
kī	Milchanang ( <i>in pl. kī-shung</i> )
kyi	Khyeng, Silong ( <i>ki in pl. with postf.</i> )
kima	Kyau
kem	Joboko Naga ( <i>pl.</i> )
kai	Kumi, Kami ( <i>comp. ngai Singpho &amp;c</i> )
tai-le	Muthun Naga ( <i>pl. i. e. t for k</i> )
kha	Lau, (Siam)
kau	Lau (Khamti, Ahom)
akau	Kari Naga ( <i>pl.</i> )
tau	Tablung Naga, Anam ( <i>t for k</i> )
ti-sei	Mulung ( <i>poss.</i> ) to-we ( <i>obj.</i> )
ti-checha	Tablung ( <i>pl.</i> )

ku	Lau (Laos), Muthun and Joboka Naga
kung	Lau (Shan)
khwa	Toung-lhoo
he-lam	Mulung ( <i>sing.</i> ) he-lan ( <i>pl.</i> )

## IV. CAUCASIAN.

na	Kasi Kurauk
-n	Iron (postfix)
-in	"
-on	"

## V. EUSKARIAN.

n	(objective)
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## VI. SEMITICO-LIBYAN.

[See *ante* Sec. 6. Supplement to Sub-Sec. 4; the root is na, no, nu, ne, ni, an, in, &c, with a prefix or postfix or with both, but also occurring bare,—contracted to the postfix or to a vowel or consonant of the root or postfix, the latter also changing from *h* to *g*, *h*, *t*, *s*.]

## VII. UGRIAN.

The 1st pronoun is the common Scythic labial, but in some cases the *m* changes to *n*.

na	Samoiede (Motor)
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## VIII. N. E. ASIAN.

na	Korea
nai	"
ad	Yeniseian
dy	"
ya	"
ai	"
a	"

## IX. AMERICAN.

ne	Athapaskan
nan	"
neeah	Sioux (Winebagocs)
ney	" "
ni	Shoshoni
i	"
in	Sahaptin

nai Chinook  
&c. &c. &c.

## 2ND PRONOUN ("THOU").

## I. CHINESE.

ni Kwan-hwa, Gyami, Horpa, Quang-tung,  
Shanghai, in *pl.* of 1st pron. *n̄gu* ni or ni (*i.*  
*e.* I, thou)  
li Kwan-hwa  
lin "  
urh, 'rh "  
nai, nei " (*anc.*)  
nong Shanghai  
na "  
nyi, ni Kek (Cheo-hu)  
ndi Kwang-tung of Si-ning  
li Hok-kien, Tie-chiu  
lú "  
du Hai-lam  
ju Kwan-hwa  
jo  
nyu

## II. DRAVIRO-AUSTRALIAN.

A. *Australian and other Asonesian.*

ngi-ngi Sydney  
ngin-toa N. S. Wales  
nin-na S. Australian  
ngin-te Encounter Bay  
ngi-du Kowrarega  
ni-nu S. Aust. (*dual.*)  
ni-medu W. Aust. (*pl.*)  
nu-rang W. Aust. (*dual.*)  
nu-ra N. S. Wales (*ib.*)  
nu-nala Parankalla (*ib.*)  
nu-rali " (*pl.*)  
n̄gu-rle Kowrarega (*dual.*)  
n̄gu-ne " (*pl.*)  
ono Onin  
un̄goe Tarawa  
ooine Hawaii

B. *Dravirian* proper.

ni	Tamil, Malayalam, Toda, Telugu ( <i>poss.</i> )
ni-nu	Karnataka
ni-n	<i>Ib.</i> Anc., Kurgi, Male, Tamil ( <i>obl.</i> ) Malayal. ( <i>obl.</i> )
nin-na	Karn. ( <i>poss.</i> ), Male ( <i>pl.</i> )
ni-en	Uraon
ni-vu	Telugu ( <i>pl.</i> postf. in sing.)
ni-h	Gond
i-nu	Khond, Tuluva (in <i>pl.</i> )
i-ng	Male (in <i>poss.</i> )
i	Gond ( <i>ag. postf.</i> ), Karn. ( <i>ib.</i> )
ai	Tamil ( <i>ib.</i> )
i-r	Kar. ( <i>pl.</i> ), Gond ( <i>ag. postf. pl.</i> )
i-ri	„ ( <i>pl. ag. postf.</i> )
i-r-gal	Tamil ( <i>ib.</i> )
na	Toda (in <i>pl.</i> ), Brahui ( <i>obl.</i> )
na-ni	Malayal. ( <i>poss.</i> with postf.)
un	Tamil
nu	Tamil Anc. (with <i>pl. poss.</i> ), Brahui (with <i>pl.</i> <i>postf.</i> )
-ru	Telugu ( <i>ag. postf.</i> ; <i>pl.</i> particle for sing.)
re	Brahui ( <i>ib.</i> )

*Plurals with the labial postf. or flexion.*

ni-m	Karn. Anc., <i>Ib.</i> Mo d. ( <i>poss.</i> with postf.), Male ( <i>pl. poss.</i> with postf.)
nim-ma	Karn. ( <i>obl.</i> ), Kurgi
nu-m	Brahui, Tamil Anc. ( <i>poss.</i> with postf.)
u-m	Tamil Mod. ( <i>poss.</i> )
mi-ru	Telugu
mi	„ ( <i>poss.</i> )
me	Gond
im-at	„
im-ar	„
mi-man	„ ( <i>poss.</i> )

*Labial Plural forms used in the Singular.*

vu	Telugu ( <i>ag. postf.</i> )
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um-*athu* Malabar (*obl.*)

im-*ma* Gond

### C. *Kol.*

in-*ko-ghi* Mandala (*pl.*)

um Ho [Tam. um *pl.*]

umma Bhumij (*obl.*)

umge Sonthal

am Bhumij, Mandala

ami Sonthal (*obl.*)

appe com. *pl.* of Kol

api Mandala (*pl.* with postf.)

me Ho (*obj. postf.* in verbs) [Gond]

m „ (*ib.*)

be „ (*pl.*)

### D. *Gangetic and Ultraindian.*

am Kiranti (in *poss.*)

pi Mon

pueh „

bai „

pha Kasia

phi „ (*pl.*)

me Kasia, Tengsa Naga (in *poss.*)

ma Namsangya Naga (*poss.* sing and *pl.*)

mei Anam

wonu Kambojan

mung Lau (Siam)

mau „ (Khamti)

mo. „ (Ahom), Sĭmang

bo Chong, Sĭmang

mong Malayu of Trauḡganu

### E. *Asonesian*

mu } Malayu-Polynesian, *poss.* and *pl.*, entering  
mo } also into composite plurals of the 1st pro-  
mi } noun.

nyu-mu Sumba

moce Solor

iba	Bali
ibu	Kandayan
iwo	Mandhar

## III. TIBETO-ULTRAINDIAN.

A. *East Tibetan or Si-fan.*

nan-re	Gyarung
nan	Changlo, Kami
nang	Bodo, Garo, Mikir, Singpho, Burman, Khyeng, Kumi, Naga (Namsang, Tengsa, Khari, Tablung, Mithan), Magar, Changlo (in poss.)
ngan	Tiberkad
nga	"
na	Gyarung ( <i>poss. pref.*</i> ), Dhimal, Mikir (in <i>pl.</i> ), Singpho (in <i>poss.</i> ), Naugaung Naga, Tengsa Naga (in <i>pl.</i> ), Tounghu
no	Manyak, Dophla, Abor, Deoria Chutia, Angami and Mozome Angami.
o	Namsangya Naga
nuwo	Magar ( <i>poss.</i> )
huni	Tiberkad
ani	Deoria Chutia, in <i>poss. ni-yo</i> [ ? Drav.]
i	Takpa
ni	Dhimal (in <i>pl. ny-el</i> , <i>poss. ni-ng</i> ) Singpho (in <i>pl. ni-theng</i> ), Khari Naga (in <i>pl. ni-khala</i> .)
i	Takpa
ne	Namsang Naga (in <i>pl. ne-ma</i> ), Angami Naga (in <i>pl. ne-ra-ma</i> ; also in <i>poss. sing.</i> )
neng	Burman
nen	"
meng	"
men	"

B. *West Tibetan or Bhotia.*

[The root is not Chinese in form, but I place the series here in order to illustrate the mixture of systems in the Himalayo-Ultradian provinces. The original was probably nga, nge, ngyo, a

\* Ni is given in the Vocabulary (and copied by Muller) as the prefixal *poss.* form, but it appears to be a misprint as Hodgson in his notices of the grammar invariably uses na-, and in a note to the Vocabulary na- also occurs.



form of the broad or E. Tibetan variety of the Chinese root still found in Tiberkad. In Thochu a similar change from *ng* to *k* has taken place in the 1st pronoun.]

kwa	Thochu
kwe	„
ka	„ (in <i>poss.</i> ), Milchanang (also <i>kas</i> )
chha	Sokpa, Newar
khyod	Tibetan <i>nr.</i>
khe	„ <i>sp.</i>
khyo	Serpa
khye	„ ( <i>poss. pl.</i> )
khe-ne	Limbu
ke-n	Gurung
kha-na	Kiranti
kha	Lhopa (in <i>pl.</i> )
hau	Lepcha
ha-yu	„ ( <i>pl.</i> )
chhu	Lhopa
chhe	„ ( <i>poss.</i> )
kheu	„ ( <i>poss. pl.</i> as in Serpa)
gai	Sunwar
ai	Murmi
ki	Milchanang
khau	Ahom ( <i>pl.</i> Lepcha form)

#### [IV. CAUCASIAN.

di Iron, closer to the Scythic.

#### [V. EUSKARIAN.

n *fem.*, perhaps *def.* only.

#### [VI. SEMITICO-LIBYAN.

The 2nd pronoun is the dental, as in Scythic, changing in some cases to *k* and also to *th*, *sh*.]

#### VII. UGRIAN.

na-n	Wogulian
na-nk	„
nei	„
ny	„
ny-ngi	„

ny-n	Ostiak
nu-m	Ostiak

[The other Ugrian languages have the common Scythic dental and sibilant pronoun.\*]

# VIII. N. E. ASIAN.

nun	Korea
un	"

# IX. AMERICAN.

yin	Athapaskan
ni	" Otomi ( <i>poss.</i> )
ian	"
na	"
nanuk	"
ne-be	Cheroki
niah	Sioux (also dia, de, neh)
inui	Selish
nan	Kinai
nin-ke	Kitunaha
eno	Naas
nune	"
&c, &c. &c.	

# TABLE OF PLURAL PARTICLES OF E. AND S. E. ASIA.

*Chinese, E. Tibetan, Ultraindian and Indian.*

mun	Chinese
mei	"
pei	"
me	Gyami
mye	Gyarung
kamye	"
-mo	Gurung
si-mong	Garó (2nd pron.)
-ma	Naga (Namsangya)
ma-rang	Garó
ma-dang	"

\* Muller's table supplies:

nen, nenna, -n	Ostiak (Irtish)
an	Yakuti.

-m	Joboka Naga, Drav.
-mya	Burman
-we	Angami (1st pron.)
-te-be	Tengsa (2nd pron.)
-ping	Newar
[-nam	Tibetan]

*N. E. Asian and E. Scythic.*

a. l, n	Yukahiri
n, n̄g	Yeniseian
r (?)	Koriak
ra	Japan
ri	Manchu
r, l	Nyertshinsk
lar, ler, r	Turkish
nar, ner	Mongol
n	Ostiak
jergi	Manchu

*Scythic.*

i	Fin
i	<i>flex. in pron.</i> Yukahiri, Hungarian, Turkish
e	Samoiede
e	<i>flex. in pron.</i> Manchu

*Chinese and Scythic.*

ki	Chinese
g, k, t, d	Scythic (with different vowels), also Caucasian, Euskarian &c.
tu, su	Chinese [Manchu sa, se, si, Mong. s, Turkish z, variations to ch occur. The Scythic sibilants are probably from t]

*E. Tibetan.*

b. ki, ko	Thochu
b. + a. k-lar	Thochu
a. + b. rigi	Horpa
a. ni	"
dur	Manyak [Mong. od, d, da, t &c. with r as in nar]

II. *Dravirian and Asonesian.*

a. la	Drav.
-------	-------

al	Drav.
lu	"
ru	"
ir	"
re	"
de	"
r	"
nar	"
mar	"
n	Gond (in <i>pl.</i> of <i>pron.</i> <i>poss.</i> -wa-n)
b. + a. kal	"
" gal	"
" ngal	"
" kan	"
" kulu	"
b. g	"
k, nk	"
t	"
ko	Kol
a. ra	Australian ( <i>plural</i> or <i>dual</i> )
rang	"
rali	"
rle	"
wa-la	"
li	"
dli	"
le	"
lin	"
rin	"
dtu	"
b. + a. ngalu	"
galang	"
b. nga	"
ra	Aru
rara	"
arouga	Polynesian
III. Gangetico-Ultraiadian.	
a. ra	Takpa

rang	Garó, Serpa
arang	Abor
rama	Angami
madang	Garó
era	Bengali
arai	Siam (3rd pron.)
b. + a. khala	Tengsa, Tablung
„ kara	Naugaung
„ galai	Dhimal
el, al, l	„
le	Muthun Naga (1st pron.)
li	Mikir
to-leli	Angami Naga
li, di, ni	Khyeng
ni	Murmi, Singpho
in, n	Kiranti
ning	Namsangya (3rd pron.)
i	Kasia (general) Singpho (pron.)
i	<i>flex in 1st pron.</i> Serpa, Limbu, Kiranti, Murmi, Gurung, Garó, Singpho
e	Namsangya ( <i>flex. 2nd pron.</i> )
he	„ ( <i>demonstratives</i> )
ku-rik	Magar [rigi Horpa]
dig	Bengali
ki-ding	Abor (? ding from ning)
ki	Sunwar
theng	Singpho
chur	Bodo [dur Manyak]
dag	Tibetan
chag	„
cha	Lhopa
do	Burman
to	„
to-thete	Angami (3rd pron.)
to-leli	„ (2nd pron.)
jo, njo	Tibetan
yu	Lepcha
	<i>Chinese and Gangetico-Ultraiidian.</i>
tse	<i>Chinese</i>

tang	<i>Chinese</i>
eshe	Tiberkad
esh, ish, osh	Milchanang
tchi	Kumi [chi, si may be from ki]
chi	Garó (1st pron.) Kiranti (3rd pron.) Limbu ( <i>ib</i> )
si-mong	Garó (2nd pron.)
sin	Abor
tam-she	Kanawari Bhotia [i. e. the Chinese double tang-tse. Comp. Tiberkad eshe]
ta-she	„
tham-che	Changlo
atung	Tiberkad
te-be	Tengsa (3rd pron.)
to-thethe	Angami (3rd pron.)
the	Toung-lhu
checha	Tablung Naga

## AFFINITIES OF THE DRAVIRIAN POSSESSIVE AND QUALITIVE

## PARTICLES.

## I. SCYTHIC.

*Dravirian.*

na, an, nu, ni, in, no  
 ta, tu, thi, ti, ji, che, cha  
 da, du, di, de  
 ra, ru, ri, re  
 la, lu &c.  
 na, nu, no, nau &c.  
 athi  
 dana, tano  
 tat, tad, dad  
 a, i, e  
 ia, ya, yo, ye, ei  
 yo-ka  
 da-ya  
 u-da-ya  
 u-dei-ya  
 in-u-da-ya  
 in-de

u-dei	
a-du	
ea	
ia, ai, a	Kol
a-tana	"
t-	Sonthal ( <i>pref.</i> )

*Scythic.*

ni, un, ung, en, na, an
ning, nung,
ugge
n, ug,
i, e, u
inki
iana

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*East Tibetan* (? Bhotia yi, i)

ni	Sokpa
i, e,	Manyak [i Mongol, Manshu]

*Gangetico-Ultraiadian.*

i	Burman
ni	Bodo, Garo
in	Limbu
un	Kami
ng	Dhimal
ne	Mikir
na	Singphu, Murmi (also la) [Scythic na, an, a]
la	Murmi, Limbu, ( <i>qual.</i> ) Changlo (ib.)
ra	Limbu ( <i>qual.</i> )
lu, lo	Changlo ( <i>qual.</i> )
nang	Namsangya Naga
rang	"

## II. CHINESE POSSESSIVES IN TIBETAN, GANGETICO-ULTRA-INDIAN AND N. DRAVIRIAN.

## CHINESE A.

ku, keu	Shanghai
ge, e	Hok-kien
ko	Quang-tung

*Tibetan.*

uk  
 k-chi Thochu  
 khyi, khi, kyi, hi Bhotia  
 ga, ka „ (*qualitive.*)

*Gangetico-Ultraiadian.*

gi Lhopa  
 ga Changlo, Abor  
 g Abor, Daphla  
 ga, ka *qual.* Newar  
 gu Newar  
 ke, ku *qual.* Limbu  
 ko, ku, ke Takpa, Kiranti, Sunwar, Magar, Dhimal,  
 Khyeng

khang Siam

*North Ultraiadian.*

ki, Male  
 ghi, hi Uraon

## CHINESE B.

ti, chi, te Kwan-hwa

*East Tibetan.*

ti Gyami  
 k-chi Thochu

*Gangetico-Ultraiadian.*

ti Serpa  
 chi Tengsa Naga  
 sei Tablung Naga  
 sa Lepcha  
 so, o Kiranti

*Dravirian.* [Possibly some of the dental forms may be Chinese and not merely variations of the Scythic *n*.]

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*Revenues of Singapore. (Continued).*

IN reporting the expediency or otherwise of establishing a monopoly on the articles of tobacco and salt at Singapore, I beg to submit the following considerations :—

*Tobacco.*

17. The only kind of tobacco in use and estimation among the Chinese and Malays of the Eastern Archipelago, is that which is of the growth and manufacture of China and Java, and being of a peculiar taste and texture, cannot be substituted by the tobacco of Bengal or other countries, to which these natives are unaccustomed. The tobacco consumed and exported at Singapore is solely the produce of the aforementioned countries, and if monopolized by Government must still continue to be drawn from the same sources. The consumption on the island is too trifling as yet to form the source of a revenue, and any expectation of a considerable rise in the export price, which must constitute the principal value of the monopoly, would be defeated by the facility with which tobacco could be sent from Java to Rhio, or even direct to the native ports, at a much lower rate than Government could afford to sell the same article at Singapore. It would also be difficult, in my opinion, to fix a tax on the internal consumption with reference to an unrestrained wholesale traffic, that would yield a certain sum to Government.

*Salt.*

18. Singapore is at present nearly wholly supplied with this article from Siam to the amount of between 50 and 60,000 piculs per annum or coyans 12 to 1,400 and exports from 11 to 1,200 coyans per annum, the purchase price is from 20 to 25 Spanish dollars per coyan. It is carried from hence chiefly to the East Coast of Sumatra, and from thence finds its way into the interior, supplying extensive districts, greatly to the interruption and injury of the Dutch trade in salt from other ports on the West Coast, the quality of the Siam salt being superior and better qualified to meet the vicissitudes of the climate in travelling, as well as being cheaper, the Dutch price at Padang being 6 Rs

\* Continued from p. 419 of vol. viii; 1854.

per picul, or 276 Rs. per Siam coyan, without the expence of transportation.

19. Salt from the Coromandel Coast, was sold at public auction in Singapore, about a week ago, for 4 Spanish dollars per coyan, so inferior is it considered to that of Siam. It is estimated that the Coast or Coromandel salt, without even its first cost, could not be landed here for less than 30 Sicca Rs. per ton, of 16 piculs, which is 100 per cent dearer than the salt of Siam, that averages only 15 Sicca Rs. per picul, and if the profit which is to form the value of the monopoly is added, it will be considerably dearer.

20. This profit, however, it must be observed, can only be estimated on the internal consumption of Singapore, because the natives without, will purchase salt wherever it is to be had cheapest, and the Siam salt being eventually excluded to favour the introduction of that from the Coast, the junks which now import from Siam, must be driven from this port, to supply Rhio and the native markets which are at present furnished from Singapore, it is evident that the preference given by the junks to dispose of their salt at Singapore, is on account of its contiguity and safety, and the opportunity afforded of selling other articles at the same time, such as rice and oil, as well as of procuring the sort of returns that are preferred.

21. The internal consumption of salt in Singapore is estimated at 12 coyans per month, or 144 coyans per annum, and is the only quantity on which the monopoly price can attach, subject nevertheless to reduction by the many favorable situations for smuggling the Siam salt into the island. Allowing 20 dollars per coyan, clear profit to Government, the revenue on this consumption would not exceed 2,880 dollars per annum, from which must be deducted the charge of storing, issuing, wastage and erection of godowns, and this profit could only be derived by obliging the consumer to pay nearly 60 dollars for what he now gets at 20 and 25 dollars, viz:—

Price of 40 piculs or 1 coyan of Coromandel salt at 30	
Sicca Rs. per ton of 16 piculs.....	Sca. Rs. 86 00
or .....	\$ 40 00

Add estimated profit ..... \$ 20 00

Dollars 60 00

This small profit is, further, only procurable at the sacrifice of a considerable portion of the Siam trade at present carried on at Singapore. The trade in cocoanut oil from Siam is nearly of the same value with the salt, and will disappear with it, because it is imported on the salt junks.

22. If the price of Siam salt is enhanced at Singapore by its being received into the Government monopoly, it may afford a fair opportunity for the Dutch Company (who I understand have some views of obtaining the salt monopoly of Java from the Government) to send salt to Rhio, and assume that superiority in the market which Singapore now possesses, owing to the better quality of Siam salt over that of Java, as 20 to 25, but which would then no longer exist, on account of the cheapness of the Java salt, which is stated to be deliverable at one of the Eastern ports on Java at 7 rupees per coyan of 27 piculs.

23. It becomes also a matter of consideration how far it would be politic to frame revenue regulations producing an uncertain profit, inadequate to the effect they would have of improving the commerce of the rival port within a few miles of Singapore which a monopoly on the part of government on salt and tobacco would in my opinion tend to produce. In this and several other instances, the parity between Singapore and Pinang does not exist. Rhio is a check to all attempts of raising a revenue by enhancing the price of merchandize that is the produce, manufacture and export of the Dutch ports, and consequently it behoves this government to use every means of preserving the present superiority of competition by enabling the merchants to sell at prices if not below, at least equal to their competitors.

\* \* \* \* \*

27. My enquiries have extended to the subject of mast cutting for junks, and the following is the result:—

30. Every large junk from Canton carries back to China 2 new masts cut and made in the neighbourhood. Four of these

vessels have visited this year and the following is a statement of the prime cost and probable sale in China of the spars about to be carried away by them:—

1st junk—1 Mainmast, 92 feet long,  $9\frac{1}{2}$  feet circumference; prime cost \$400, probable sale \$1,800.

1 Foremast, 72 feet length, 7 feet circumference; prime cost 200 dollars, probable sale 320 dollars.

2nd Junk—1 Mainmast, 96 feet length,  $9\frac{1}{2}$  feet circumference; prime cost 450 dollars, probable sale 2,200 dollars.

1 Foremast, 80 feet length, 8 feet circumference; prime cost 250 dollars, probable sale 340 dollars.

3rd Junk—1 Mainmast, 94 feet length,  $9\frac{1}{2}$  feet circumference; prime cost 440 dollars, probable sale 2,100 dollars.

1 Foremast, 78 feet length, 7 feet 8 inches circumference; prime cost 240 dollars, probable sale 330 dollars.

4th Junk—1 Mainmast, 88 feet in length, 8 feet 8 inches circumference; prime cost 400 dollars, probable sale 2,100 dollars.

31. Of the above 8 spars, six have been cut in islands and places without the jurisdiction of Singapore, but still on islands under the authority of His Highness the Sultan of Rhio, viz: Poolow Boolar and Soonghye Tring, the other two were cut on an island within the Singapore districts, which are said not to afford spars of sufficient magnitude.

32. It is thus evident that a duty levied can easily be evaded by a supply to be provided where our jurisdiction does not extend.

33. Having thus submitted all the information I have had it in my power to collect on the subject of revenue, I must crave the favorable consideration of the Honorable the Governor in Council, if the result does not correspond with their expectations, but, as I have considered it a sacred duty to display the truth, as attested by experience on the few points of reports, I with deference submit the final decision to their better judgment, whether the regulations at present in force (already before the Government) are not considered adequate to existing circumstances and the prosperity of Singapore as a commercial depôt and a young settlement, or whether it will be prudent and necessary to add thereto or extend them, —respectfully offering my own opinion that any material alteration in the present system is unnecessary, with reference to the original

object of forming the establishment, and until the island is more cleared, agriculture more resorted to, and the population become more settled and identified with the soil.

I have the honor to be, &c..

(Signed) John Prince,  
*Resident Councillor.*

Singapore, 7th April, 1827.

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*List of Public Servants and European Inhabitants residing  
at Singapore, March, 1827.*

Hon'ble John Prince, Esq., Resident Councillor.

Edward Presgrave, Esq., Deputy Resident, Malay Translator.

S. G. Bonham, Esq., Assistant Resident, in charge of the  
Police and Convicts.

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Revd. R. Burn ; Chaplain.

Captain W. Flint, R.N. ; Assistant Master Attendant and Post  
Master.

Captain C. E. Davis ; Garrison Staff.

Lieut. P. Jackson ; Executive Officer.

W. Montgomerie, M.D. ; Residency Assistant Surgeon.

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*Extra Covenanted Servant from Bencoolen.*

R. G. Perreau.

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*Assistants attached to different officers.*

*Resident's and Secretary's office.*

J. F. Burrows.

W. Hewetson.

J. D'Remedios.

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*Accountant's and Pay Office.*

R. Winter.

T. H. Bell.

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*Police Office and Convict Department.*

W. Campbell.

J. Salmon

W. Holloway.  
 Henry Gilbert, Constable.  
 Francis Cox, ditto.  
 Robert Macquire, ditto.  
 Hilton, Overseer of Convicts.

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*Master Attendant's Office.*

Edward Coles  
 John Leyden Siamee.

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*Post Office.*

Edward Coles.

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*Commissioners Court of Requests.*

Edward Presgrave.	} Commissioners
S. G. Bonham.	
W. Holloway, Clerk.	
Francis Cox, Bailiff.	

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*Merchants and Houses of Agency.*

Messrs Almeida & Co.  
 „ Armstrong, Crane & Co.  
 „ Dalton, J.  
 „ Farquhar, A.  
 „ Guthrie and Clark.  
 „ A. L. Johnston & Co.  
 „ Mackenzie & Co.  
 „ Maxwell & Co.  
 „ Morgans, Hunter & Co.  
 „ Napier, Scott & Co.  
 „ Purvis, J.  
 „ Spottiswoode, Connolly & Co.  
 „ Syme & Co  
 „ Thomas & Co.

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*European Inhabitants.*

Bernard, F. J.; Agent to Lloyds and Notary Public  
 Brown, J.; employ of Messrs Mackenzie & Co.

- Bruce, Jas. R.; employ of Messrs Armstrong & Co.  
Coleman, G. D.; Civil Architect.  
Dunman, W.  
DeSilva, Martinus; employ of Lieutenant Jackson.  
Douwe, P. F.  
Ellis, John; employ of Messrs Johnston & Co.  
Francis, J.; Tavern-keeper.  
Freeze, Frederick.  
Fraser, James; employ of Messrs Maxwell & Co.  
Gordon, James.  
George, W. R.; employ of Messrs Thomas & Co.  
Gummer, John.  
Hansen, H. F.  
Hawthorn, D.; Ship Carpenter.  
Hay, A.; of the firm of Messrs Johnston & Co.  
Hallpike, Stephen.  
Holloway, C.  
Hunter, R.  
Lardner, Thomas; in Mr Temperton's employ.  
Laby, Thomas, Punch-house keeper.  
Loch, James; Editor of the Singapore Chronicle.  
Macintosh, J.; employ of Messrs Connolly & Co.  
Merryweather, W.; employ of Messrs Syme & Co.  
Maia, F. de Silva Pinto; Roman Catholic Priest.  
Matti, Miguel; Watch Maker.  
Milton, S.; Missionary.  
Macdonald, William; employ of Morgans, Hunter & Co.  
Martin, A.; Surgeon.  
Moore, R.; employ of Messrs Maxwell & Co.  
Napier, W.  
Napier, R.  
Page, W.; employ of Morgans, Hunter & Co.  
Patton, W. P.; of the Firm of Messrs Morgans, Hunter & Co.  
Pelling, R. E.; employ of Messrs Guthrie & Clark.  
Read, C. R.; of the Firm of Johnston & Co.  
Ryan, C.; employ of Messrs Napier, Scott & Co.  
Shaw, W. D.; of the Firm of Messrs Mackenzie & Co.  
Sweeting, S.; employ of Messrs Syme & Co.

Swinton, Shipwright.  
 Steward, W. ; employ of Messrs Thomas & Co.  
 Solomon, G. ; employ of Messrs Johnston & Co.  
 Temperton, W. ; Shipwright.  
 Thomas, Charles.  
 Thomas, C. S.  
 Thomas, Josiah.  
 Thomsen, C. H. ; Missionary.  
 Westerborgh, Punch-house keeper.  
 Wright, John.

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*Armenian Merchants and others in their employ.*

Isaiah Zechariah.  
 Messrs Satoor and Stephen.  
 Aristakus Sarkis and J. Manook.  
 Carapit Phanoos.  
 Johannes Simon  
 Sarkis Aratoon Sarkis  
 Seth Avieth Seth ; employ of Isaiah Zechariah.  
 Andrew Zechariah ; employ of Isaiah Zechariah.  
 C. P. Zechariah ; employ of Isaiah Zechariah.

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*Rates of Wages for Coolies &c.*

A Chinese cooly per day 8 fanams.....	37	Cents.
Malay Do. 6 Do.....	20	"
Head Carpenter.....	75	"
Inferior Do.....	50	"
Head Bricklayer.....	75	"
Inferior Do.....	50	"
A Chinese cooly employed in plantation by the month.....	\$6	per month
A Malay Do Do.....	5	"
Hours for cooly work, from $\frac{1}{2}$ past 6 A. M. to 11 and from 1 P. M. to $\frac{1}{2}$ past 5.		

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No. 63.

Messrs Almeida, Armstrong, Crane, Dalton, Guthrie, Hay, Hunter, Johnston, Mackenzie, Maxwell, Patton, W. Napier, R.



Napier, Purvis, Read, Spottiswoode, Connolly, Syme, Charles Thomas, Bernard, Brown, Bell, Bruce, Coleman, Dunman, Ellis, Freeze, Frazer, George, Hansen, Hawthorn, Lardner, Laby, Loch, Merryweather, Milton, MacDonald, Martin, Page, Shaw, Swinton, Temperton, Salmon, C. F. Thomas, J. Thomas, Thomsen, West-erborah, Gilbert, Cox, Macquire, J. Wright, Allpike, Gummer.

British European inhabitants residing at Singapore.

Having been directed by the Hon'ble the Governor in Council to call upon all British European Inhabitants residing at this Settlement to exhibit the date of their arrival, occupation and license under which they reside, I request that you will transmit to my office the information required for transmission to the Honorable the Governor in Council, as well as subscribe your names in acknowledgment of having perused this requisition.

(Signed) John Prince,

*Resident Councillor.*

*Singapore, 20th March, 1827.*

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*Inspected by*

(Signed)	George Armstrong,	(Signed)	James R. Bruce,
"	Thomas Owen Crane,	"	Frederick Freese,
"	John Dalton,	"	Wm. Temperton,
"	A. Guthrie,	"	J. Solomon,
"	Hugh Syme,	"	Charles Thomas,
"	Graham Mackenzie,	"	C. S. Thomas,
"	J. D. Maxwell,	"	Josiah Thomas,
"	James Frazer,	"	H. F. Hansen,
"	A. L. Johnstone	"	Thomas Laby,
"	George D. Coleman,	"	Thomas Lardner,
"	Andrew Hay,	"	W. Page,
"	C. R. Read,	"	S. Milton,
"	John Ellis,	"	T. H. Bell,
"	W. R. George,	"	Francis Cox,
"	A. Martin,	"	Daniel Hawthorn,
"	John Connolly,	"	H. Gilbert,
"	Wm. Spottiswoode,	"	R. Macquire,

(Signed) W. Merryweather,	(Signed) Stephen Hallpike,
„ William P. Paton,	„ Robert Hunter,
„ William MacDonall,	„ John Gummer,
„ James Loch,	„ W. D. Shaw.

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*Report upon the present state of the Honorable Company's  
Botanical Garden at Singapore, 1st February, 1827.*

To the Hon'ble John Prince, Esq.

Sir,—In laying the accompanying report upon the present state of the garden before you, it seems to me proper to mention that in the year 1822, it was proposed to Sir Stamford Raffles by Dr Wallich, to establish a Botanical and Experimental Garden, for the purpose of forming a depôt for plants, from the circumjacent parts of the world, for which purpose Singapore seemed admirably adapted by its central situation and mild climate, by means of which plants indigenous to countries situated in high latitudes, might more easily be naturalized to a tropical climate, at the same time the experiment of cultivating spices was to be tried and if found to succeed might be carried on to any extent necessary. Dr Wallich proposed to me to take charge of the garden, but at the same time told me that as the thing was upon a small scale my services must be gratuitous. I readily assented to his proposal and was in consequence put in charge by the Lieutenant Governor. When Dr Wallich left Singapore he promised to send one of his experienced assistants from the Botanical Garden at Calcutta, who would give me the necessary aid in the Botanical department. In the mean time the Lieutenant Governor ordered an allowance of \$60 per mensem, for the support of an establishment and to cover contingent charges for tools, building and repairing of huts for the workmen, and I was directed to go on with the necessary operation of clearing the ground and planting out the spices and taking care of those already planted by Lieut. Colonel Farquhar, until I should obtain the promised aid from Calcutta; but from causes of which I am ignorant, I have never heard from Dr Wallich further upon the subject. My attention has been therefore turned solely to the cultivation of the spices which appeared to thrive uncommonly well. Some of the nutmeg

trees have been in pretty good bearing since last year and the finest of the fruit I have planted out as soon as ripe, by means of which there are now upwards of 200 young plants, the produce of the garden, now in the nursery. The clove trees, though one or two showed appearance of blossoms last year, have never yet produced fruit, but this year there is a show of buds which if they come to perfection will turn out a very abundant crop. The trees are in general very healthy and well grown for their age, and though we labour under the great disadvantage of not being able to procure manure, from the scarcity of cattle at this place, the appearance of the plants is admitted by Mr Lewis and other gentlemen who have had considerable experience in the cultivation of spices to be equal, if not superior to those at Bencoolen, where the trees were well manured. I have thought it proper to form the ground upon which the plants stand into a series of terraces 18 feet broad and which are a little inclined towards the hill side, by means of this the rain which falls is retained a longer time and is prevented from washing away (which it did before) the richest and best mould formed by the decay of vegetable matter. A brick wall with pillars and intervals of wood work was built in front of the garden and I have planted a Chinese bamboo fence round the hill side. The low ground has been partially drained and roads made, but from the small number of people employed the attention which the other operations require makes it difficult to keep the roads in such order as might otherwise be desirable. Eleven free labourers are employed, paid from the established allowance, also three convicts who had been employed in the cultivation of spices at Bencoolen, but as they only work 6 hours per diem, they do not go through much labour. The following is a statement of the plants, which I have divided into 4 classes, the 1st class includes the plants from 6 to 8 years old some of which are in bearing, 6 of the nutmeg trees may be said to be in good bearing and a considerable number partially so. The sex of those which come under the head of doubtful is unknown from want of flowers or fruit, but which if females may be expected to come very soon into bearing. The 2nd class includes those plants which are under 6 years old. The 3rd class those planted. The fourth the plants still in the nursery.

<i>Nutmegs.</i>		<i>Cloves.</i>	
1st Class—Males ..	50	1st Class.....	49
Females .	51	2nd Class.....	37
Doubtful.	38	3rd Class.....	22
2nd Class.....	72	4th Class.....	200
3rd Class.....	88		
4th Class—		Total..	308
Plants from Bencoolen. ....	113	About 6 of 1st Class clove have a great number of buds, the others are well grown and may be expected to bear in the course of a year.	
„ Singapore seed.....	207		
Total.....	619		

It is also worthy of remark that several of those which I have put under the head of male nutmeg trees bear a good number of fruits and might therefore with propriety come under the class of *Monacœa* instead of the *Diaciæ* under which they are ranked by Botanists.

Upon the subject of the utility and advantages of the garden, I beg your indulgence to a few observations I have ventured to make upon the subject.

By the cession of Bencoolen to the Dutch, they have become possessed of almost the only check we had upon their monopoly of the valuable spice trade; for the hitherto limited culture of spice at Prince of Wales Island can supply but a small part of an article so much in demand, and I am not aware of the extent of cultivation at the Island Bourbon, to form a judgment how far it would prove a check upon the Dutch, but it being also under a foreign flag we cannot look to it as a permanent source of supply. The cultivation of spices in our settlements appears therefore to me to be a subject deserving the attention of Government, for, although operations of this nature are generally speaking more profitably conducted by private individuals, yet so few have the means or inclination to enter upon a speculation from which no returns can be obtained for 7 or 8 years, that it will most likely be neglected. But it appears to me that this place possesses peculiar facilities for Government to carry on such operations. There is a great extent of ground quite unoccupied and well adapted

for the purpose, if we may judge from the result of the experiment hitherto carried on, upon which the convicts might be most usefully employed in clearing the ground, and cultivating the spices until such time as the trees began to produce, when perhaps the best system would be to divide the plantations into gardens of a proper size for the management of private individuals, to whom they could be farmed for any terms of years that might seem most advantageous for both parties. Numbers of industrious Chinese would be glad of an opportunity of employing themselves in a way so congenial to their habits and inclinations, and I have no doubt that many Europeans would be inclined to embark in a business which would give returns in the course of a year. But unless Government take a lead in it, I am much afraid that it will be almost entirely neglected and that the trade will fall into the hands of the Dutch, an opportunity they will not be slow to take advantage of or they will act very differently from their usual policy. In some degree to prevent which the garden seems to me to afford the means of raising such a supply of young plants as will meet any demand for plants for Government use, and private individuals might also be supplied with plants if they felt inclined to cultivate. I trust that the interest of the subject will be my apology for having encroached so much upon your valuable time.

I have, &c.

[Signed] W. Montgomerie,

*Superintending Botanical Experimental Garden.*

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NOTES TO ILLUSTRATE THE GENEALOGY OF THE MALAYAN  
ROYAL FAMILIES.\*

1. For deduction from Alexander the Great to Tarsi Badarus, the first in this list, see "Table of Descents, from Rajah Kidah Hindee to Tarsi Badarus."

2. The dates over each of the kings are taken from Crawford, who gives Van der Worm, Valentijn and Marsden as his authorities. It will be observed that these dates do not agree with the statements of the annalist, as for example from the accession of Rajah Ketchil Besar, 2nd king of Singapore in 1208, till the accession of Sultan Mahomed Shah in 1276. There are 6 kings in lineal succession from father to son, yet the whole time allowed is 68 years, or 11 years for a generation. Eleven years might be admitted as the length of a reign in collateral successions but of course cannot be received in descents from father to son.

We must therefore either reject the annalist's statements of lineal successions or Mr Crawford's chronology. Suppose for the sake of argument we choose the latter course, and accept as our earliest ascertained date the introduction of Mahomedanism, in the reign of Sultan Mahomed Shah in 1276, the first of his reign. Seven kings reigned and allowing 25 years for each reign, which will be perhaps as fair a calculation as can be fixed on, we have Singapore founded in 1101, and the dates of each reign as follows:—

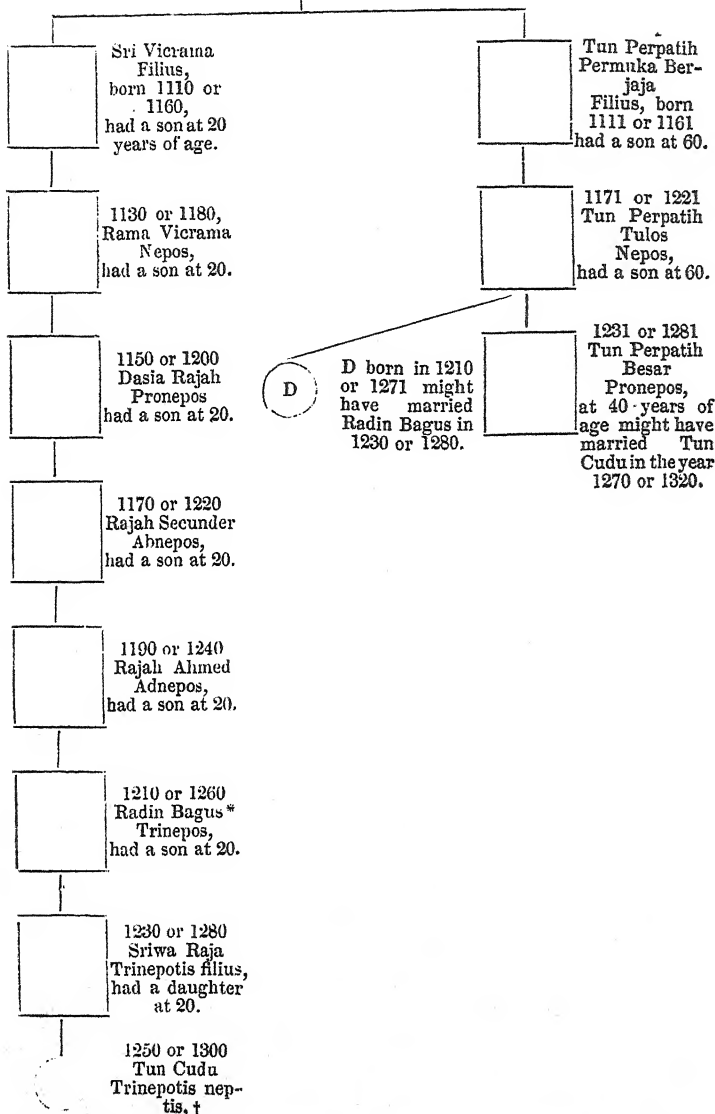
	A. D.
Sri Tribuana.....	1101
„ Vicrama Vira.....	1126
„ Rama Vicrama .....	1151
„ Maharajah .....	1176
Rajah Secunder Shah .....	1201
„ Ahmed .....	1226
Radin Tengah .....	1251
Sultan Mahamed .....	1276

3. Considerable confusion exists in the annals with regard to the younger branch of the Singapore family—the Bandahara Tun Perpatih Besar, the son of Rajah Ketchil Mudah called Tun Perpatih Permuka Berjaja, the first Bandahara, is said in the XI annal

\* The accompanying Tables are supplementary to the "Abstract of the Sijara Malayu or Malay Annals, with notes, by T. Braddell, Esq.," published in the 5th and 6th Vols. of this Journal.—ED.



Sri Tribuana  
had 2 sons about  
the year 1110,  
or by Mr Craw-  
ford's acct. 1160



\* In 1230 or 1280, at 20 years of age, might have married a daughter of Tun Perpatih Tulos, born in 1210 or 1260, when that chief was 40 years old:

† Might at 20 years of age have married Tun Perpatih Besar, in the years 1270 or 1320.



to have been appointed Punghulu Bandari. This was after the introduction of Mahomedanism in 1276. Tun Perpatih, son of the first Bandahara, must have been born between the year 1200 and 1210 by Mr Crawford's chronology and about 1130 by that offered here, so in either case he could not have been appointed Punghulu Bandari in 1726. I have added Tun Perpatih Besar as a son of Tun Perpatih Tulos and thus the difficulty may be overcome, and as shown in the prefixed table, the 3 daughters of Tun Perpatih Tulos might have married the 3 sons of Rajah Ahmed and Tun Perpatih Besar himself might have married Tun Cudu daughter of Sriwah Rajah and the divorced wife of Sultan Mansur Shah.

This system will not be so singular if we recollect the Asiatic custom of marriages—that is, men marry at different periods of life, choosing a new wife after the last has lost her charms and beauty.

This table is given in order to point out the possibility in point of time of a marriage having taken place between Tun Perpatih Besar and Tun Cudu, even with a full allowance of time for each descent from father to son. According to Mr Crawford's dates Tun Perpatih Tulos might himself have married Tun Cudu.

4. According to Mr Crawford's chronology Radin Tengah, 3rd king of Malacca, is omitted, and only two years allowed from the accession of Rajah Ahmed, 2nd king of Malacca, to that of Sultan Mahomed Shah, the 4th king, yet the annalist expressly states the Radin Tengah was son of Rajah Ahmed, and Sultan Mahomed son of Radin Tengah.

5. The dates subsequent to the introduction of Mahomedanism appear to require revision. Mahomed Shah reigned according to Mr Crawford from 1276 to 1332 or..... 56 years. Sultan Abu Shehed from 1332 to 1334 or 2 years. This

date agrees with the Annalist who informs us that monarch reigned 1 year and 5 months and was succeeded by his brother Sultan Muzaffer who reigned from 1334 to 1374 or.....	40	„
Sultan Mansur reigned from 1374 to 1447 or.....	73	„
Sultan Alaoodin reigned from 1447 to 1477.....	30	„
Sultan Mahmud reigned from 1477 to 1513 or.....	36	„

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5|235 years.

excluding Sultan Abu Shehed we have thus 47 years for each descent from father to son. By assuming that Mahomedanism was introduced in the reign of Rajah Besar Mudah, whose title, not given by the Annalist, might have been Mahomed, we may add two kings to the period of 235 years and thus obtain 33½ years for each reign, a period though long more likely to be correct than the other.

6. There is considerable confusion in the account of Sultan Mahmud's reign, the Prince under whose rule Malacca was taken by the Portuguese. By the Malayan Annals it appears that Sultan Mahmud abdicated in favour of his son Ahmed before the arrival of the Europeans, but that he returned to power and conducted the defence of Malacca. After the capture of his capital he and his son Ahmed after flying in different directions went together to Pahang and thence Mahmud went to Bentan where he settled himself, while Ahmed went to Bukit Batu where he died. It does not appear from the Annals that Ahmed survived his father; indeed that prince's enjoyment of power was confined to Malacca, apparently to the short period his father remained absent from the seat of government during his abdication. The kingdom of Johore was founded by Mahmud after the destruction of Bentan by Mascarenhas in 1526. There can be no doubt of the name of the founder, as he is identified by Portuguese writers as the same Mahmud who governed Malacca when the Portuguese arrived. It is not improbable that on his death he was succeeded by his son by Tun Fatima, by name Alaoodin Rayait Shah, which would be in 1529, so that Ahmed's name ought more properly to be omitted from the Johore list. The three first kings in the Johore list are to be found in the Malacca table.

Mr Crawford, Vol. II. p. 489, makes Ahmed ascend the throne of Johore in 1513 (Johore was not then founded), and in the next page he has Mahomed the ex-king of Malacca blockading Malacca. The best explanation of the confusion is that above attempted, that Ahmed died during his father's lifetime, and never sat on the throne of Johore, and that on or before his death his father Mahmud resumed the reigns of government.

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NOTE TO ILLUSTRATE THE TABLE OF JOHORE LATER KINGS.

The origin of the connexion of the Bugghese with the South of

the Malayan Peninsula is involved in obscurity. There is little to be found on the subject in any of the English writings. From Dutch accounts it would appear that about the commencement of last century, (Mr Newbold says 1719), Johore was overrun by Menangkabows from Siak. The Bugghese who had long carried on a profitable trading intercourse with Johore and had acquired considerable influence in the Government of that empire, found their influence greatly diminished by the presence of the intruders and determined to take steps for the removal of the difficulty. In 1726 Klana Jaya Putra, accompanied by two of his relatives Dayang Palu and Dayang Pranee, came over to Rhio where he collected a force for the expulsion of the Menangkabows. The Sultan of Johore, Abdul Jalil, had been killed at the mouth of the Pahang river by the Siak chief Rajah Ketchil, who proclaimed himself king of Johore. The Bugghese attacked the usurper and finally succeeded in expelling him and in retaking the whole of Johore. After this success Jaya Putra did not himself demand royal power, but, with his followers, restored the government to Suliman, the eldest son of the late Abdul Jalil. In reward for his valuable services Jaya Putra was appointed to the hereditary office of Rajah Muda of Rhio, an office not before known in the Malacca or Johore empire; and the island of Rhio, the great place of resort of his countrymen for trade, was made over to his own rule, as a vassal of Johore; but, as to internal management, independent. He also received in marriage the hand of Tuanku Aioo, a near relative of the late Sultan.

The present Tumonggong at Singapore is descended from Rajah Fatima Daiang Pranee, the issue of this union, who married Tuanku Tengah, the sister of Sultan Suliman, and had a daughter, named Rajah Mah Moonah, who, in turn, married the then Tumonggong, and by him had two children, Daiang Chela and Daiang Ketchil. The latter was the grandfather of the present Tumonggong of Singapore, who is thus of Bugghese blood.

Daiang Palu, brother of Klana Jaya Putra, received the hand of a sister of Sultan Suliman, and by her had a son named Tuanku Putri, who, in turn, married his cousin, Tuanku Jaleel, daughter of Sultan Suliman. The issue of this marriage was Mahamed who died in 1809, leaving two sons by wives of inferior birth.

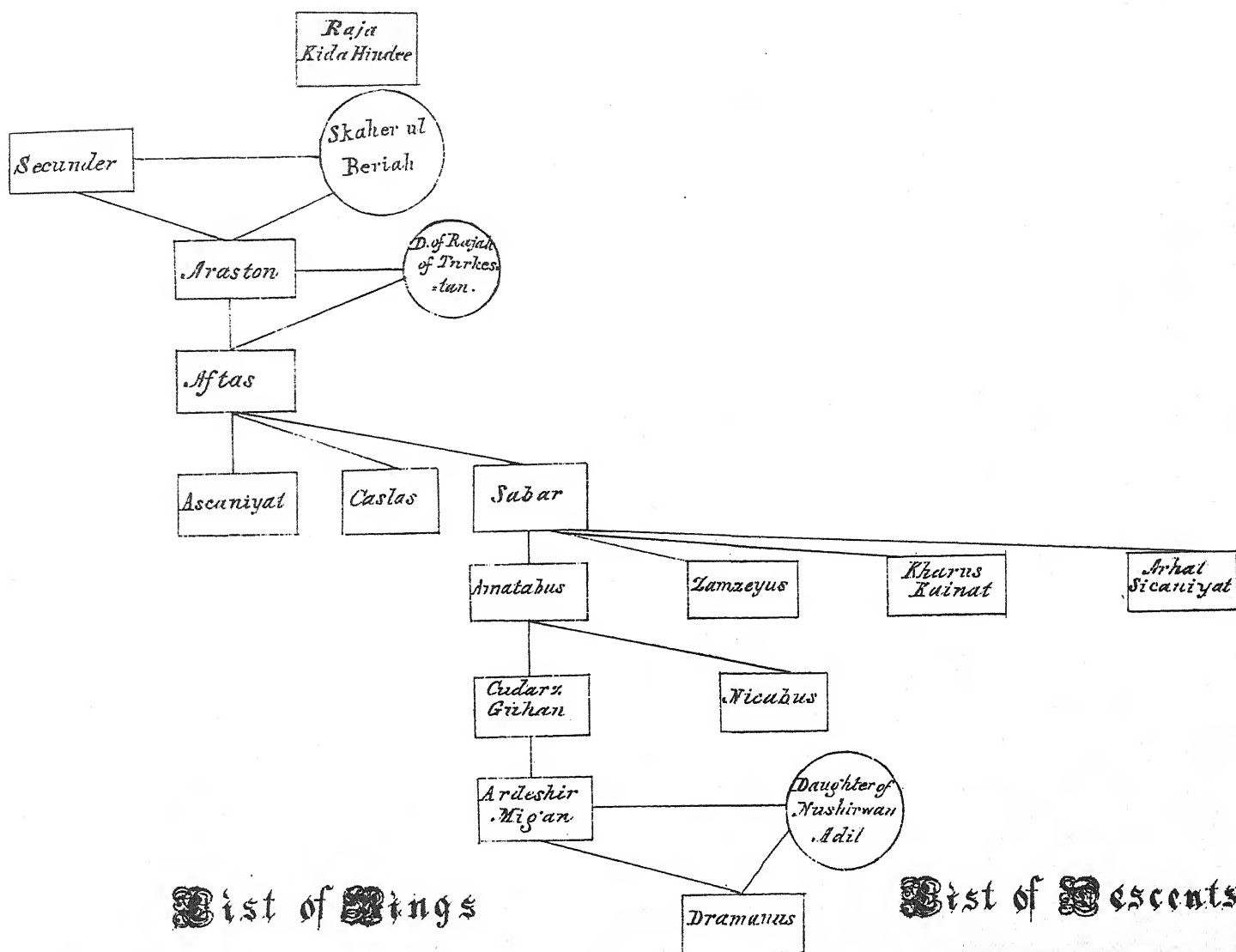
One of those sons, named Houssain, afterwards became Sultan of Singapore, under the auspices of the English, and made over the Island of Singapore to Sir Stamford Raffles. The other was Abdulrahman, the friend of the Dutch ; and named by them Sultan of Lingga. Sultan Houssain left four legitimate children, by his Sultana Purboo, the eldest, named Ali, is the present representative of the family, but is without title or power. Sultan Abdulrahman of Linga left a son, named Mahamed, who died in 1841, when his son the present Sultan of Linga, succeeded to his honours.

Daiang Palu, in addition to the above named issue by royal marriage, had also two sons Rajah Salleh and Rajah Hadjee and two daughters by a wife of inferior birth. One of these sons, Salleh, was sent to the Bugghese Colony at Salangore, and afterwards became Rajah of that place. He was succeeded, at Salangore, by his son Rajah Ibrahim, the father of Mahomed, the present Rajah of Salangore.

Klana Jaja Putra, on his decease, was succeeded at Rhio by Daiang Pranee, his nephew, better known as Daiang Cambodian, or the Murhum Jangoot. He, in turn, was succeeded by his cousin, Rajah Hadjee, the same who attacked Malacca in 1782, and brother of the Rajah of Salangore, who was succeeded by his grand nephew Rajah Alli. On Rajah Alli's death his cousin Rajah Jaffar, son of Rajah Hadjee, succeeded. Abdulrahman, the late Rajah Moodah, succeeded Jaffar, and on his death his brother Rajah Alli became Rajah Moodah, which dignity he now enjoys. This account, which will appear more clearly in the accompanying tabular form, shows the strong Bugghese connexion which has existed for the last century with Johore, leaving a pure Bugghese King of Salangore, and a Rajah Moodah at Rhio, half blood in the Sultanat, and half blood in the family of the Tumonggong.

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# TABLE OF DESCENTS FROM RAJAH KIDA HINDEE TO TARSI BADARUS

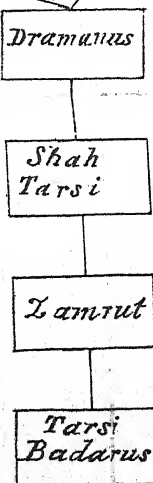


## List of Kings

- 1 Secunder and Kida Hindree
- 2 Araston reigned 350 years according to the Malayan Annalist
- 3 Aftas ..... 120 .....
- 4 Ascaniyat ..... 3 .....
- 5 Caslas ..... 12 .....
- 6 Amatabus ..... 13 .....
- 7 Lamzeyus ..... 7 .....
- 8 Kharus Kainat ..... 30 .....
- 9 Arhat Sicaniyat
- 10 Cudarz Guhan
- 11 Nicabus reigned 40 .....
- 12 Ardeshir Mig'an
- 13 Dramanus
- 14 Shah Tarsi
- 15 Lamrut
- 16 Tarsi Badarus

## List of Descents

- 1 Secunder
- 2 Araston
- 3 Aftas
- 4 Sabar
- 5 Amatabus
- 6 Cudarz Guhan
- 7 Ardeshir Mig'an
- 8 Dramanus
- 9 Shah Tarsi
- 10 Lamrut
- 11 Tarsi Badarus

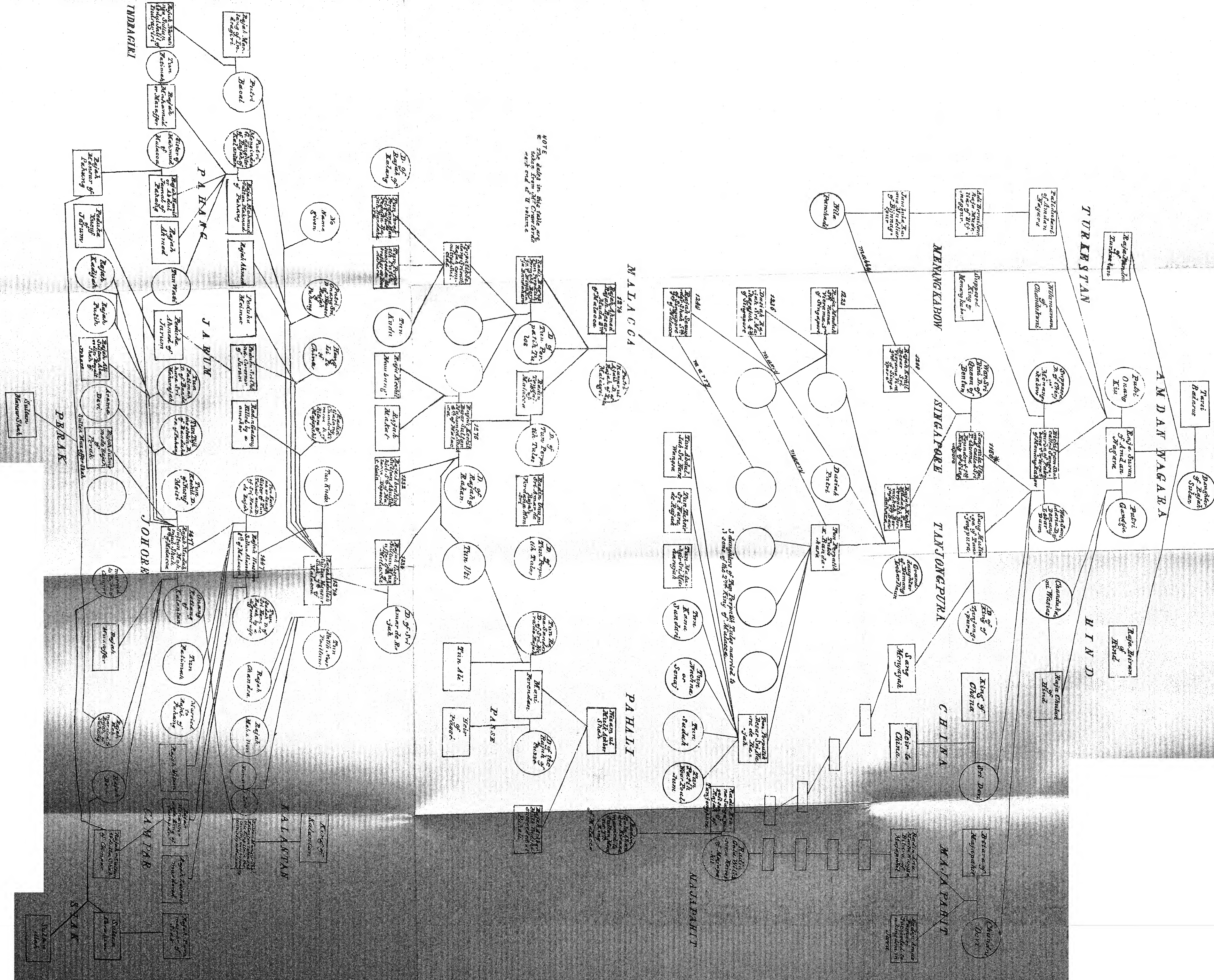






COMPILED FROM THE MALAY — ANNALS  
BY

BM









TRANSLATION OF THE MALAYAN LAWS OF THE PRINCIPALITY  
OF JOHOR.

*Hiring and Borrowing.*

If a free man employ the slave of another with the knowledge of his master and the master receive the profits of the slave's labour, such master shall be answerable for any property entrusted to the slave.

If a man employ the slave of another without the master's knowledge, the master shall not be answerable for any loss incurred in the slave's misconduct or neglect, nor shall the slave himself be liable to any punishment.

If a slave be hired to climb a tree with the knowledge and consent of his master, and if he fall and be killed or fracture a limb it shall be deemed a misfortune only and no restitution shall be made by his employer.

If one borrow a slave of another and the master shall have said "for what purpose do you borrow your servant's slave" and the borrower have answered "for such and such a purpose" in this case he who borrowed shall make restitution to the amount of two-thirds of the slave's value.

If a man borrow a slave for the purpose of climbing trees and say to the master "peradventure he may be killed or maimed" and the master shall have replied "if he be killed let him be killed and if he be maimed let him be maimed," and this slave be killed, the borrower shall make restitution to the extent of one-third of his value only, or in the event of his being wounded or hurt, defray the expense of curing him and restoration to his master.

If a man hire the slave of another and employ him in diving without the knowledge of his master, and he be drowned, the borrower shall make restitution to the extent of one-half of the slave's value.

If in such a case the slave shall have been employed in diving with the knowledge of his master, the borrower shall make restitution to be extent of one-third of the slave's value only, for the slave was fairly employed for hire.

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If a man borrow a buffalo and secure him in a pen near to

his dwelling and he should be killed by a tiger, or lost, the borrower shall pay one-half of his value.

If the borrower place the buffalo in a situation distant from his dwelling and he be killed by a tiger or be lost, the borrower shall make restitution to the full amount. This is the law concerning animals.

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If a man borrow the female slave of another, and cohabit with her, he should be fined, if such cohabitation be contrary to the woman's inclination, one tahl and one paha, or with her consent five mas.

If a man borrow a female slave of another and cohabit with her, she being a virgin, he shall be fined 10 mas, a piece of cloth, a coat, a dish of areca and betel, and be directed to make an obeisance to the owner of the slave.

If in such case the woman have been a widow the fine shall only be five mas. This is the law of the town, of the villages, the creek and bay and the distant dependencies, that no one presuming on his own importance may oppress the unprotected slaves.

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If a person borrow a buffalo and employ it in dragging wood, should it die accidentally, the borrower shall make restitution to the extent of one-half the price.

If a person borrow a buffalo and employ it in dragging wood and it die from some obvious cause, the borrower shall make restitution to the full extent at the price.

If buffaloes be borrowed for any other use whatever and they die, the law is the same as in the case of dragging wood.

If a man borrow a buffalo and say to the owner, "your servant means to employ it in a mill or in ploughing," and forthwith he employs it in dragging wood or such like labour, and the buffalo die, the borrower shall make restitution to the full extent of the value for his breach of contract with the owner of the buffalo.

If a person borrow a buffalo, ox, or goat, and secure them in a pen and they die suddenly, or be lost, he shall make restitution to the extent of half the price.

If a man borrow a buffalo, ox, or goat, and the value of the animal be fixed beforehand and it die, the borrower shall make restitution according to the price determined on.

According to the law of God the price of every borrowed article should be fixed beforehand with the owner thereof, for in every act of borrowing it is required that the terms be distinct and certain.

If a man borrow a bill-hook and use it in shaving rattans or wood and it be broken he shall make restitution to the amount of half its value.

If a man borrow a knife and use it legitimately in shaving rattans or wood and it be broken, he shall restore one half its price; but should such knife be employed by him to hack or chop timber and it be broken, he shall restore its full value, for hacking and chopping is not the proper use of such an implement.

But it is to be understood that in all cases where a previous engagement has been entered into no restitution is required.

If a man borrow an oar and use it as a paddle, or a paddle be employed as an oar and they be broken or injured the borrower shall restore the full value.

#### *Bailment.*

If goods be given in charge to an artist to make up—such as to a blacksmith, a joiner, a goldsmith, a silversmith, a coppersmith, tinsmith, or taylor, and they be lost, such artist shall be compelled to make restitution to the full amount.

If a man give goods to an artist to make up and he neglect to pay him wages, it shall be lawful for the artist to pawn the goods in question after the expiration of one month, provided it be done in the presence of two or three witnesses, being freemen.

#### *Property in Land.*

If a man occupy gardens or orchards belonging to another, who is absent, the temporary occupant shall keep possession of the ground but the original owner shall be entitled to one-third of the produce.

If the occupant refuse to divide the produce and maliciously cut down the trees, the original owner shall on complaint to the Magistrate be entitled to one quarter of the value of the trees so destroyed.

But the cases in which the original planter or owner of fruit trees can have no redress, are those in which the land on which they stand shall have been permitted to be occupied by the sovereign or his principal officers.

If a man rent orchards or fruit gardens and it be proved that the trees yield no fruit during the tenant's occupation, the owner of the gardens shall be fined in double the amount of the rent. But this law shall not apply to gardens of cocoanuts or of areca palms.

If the tenant of a garden or orchard discover treasure or other valuables on the ground he occupies, he shall be entitled to one-third of the amount, and the remaining two-thirds shall go to the owner of the ground.

If any one discover treasure or valuables on lands which he has been permitted to occupy by the king or his officers, he shall be entitled to one-half, and the King or Lord from whom he has received the ground shall receive the other half.

If a man occupy the plantation of another while he is absent, either by accident, or in consequence of having incurred the displeasure of the prince, and he use or sell the produce, the original owner he shall have redress.

Land is of two kinds—appropriated and unappropriated. The last has no owner, for it has no mark to indicate appropriation and therefore cannot be the subject of litigation.

He who reclaims such land and builds thereon shall not be molested in his possession.

The indications of land appropriated, are wells, fruit trees, signs of culture, and if any one interfere with such land he shall be subject to prosecution.

If any one forcibly enter upon such appropriated land he shall be fined ten mas or at the discretion of the Magistrate according to the extent of the land so entered upon.

If a man makes a village and garden upon appropriated land not knowing it has an owner and the owner return he shall be entitled to one-third of the produce.

If a man cultivate appropriated marsh rice land, not knowing it has an owner, in this case also the latter shall be entitled to one-third of the produce.

If a man occupy the ground of another prepared for upland culture, he shall be fined ten mas.

If a man trespass upon such ground he shall be fined one takil and one paha.

If a number of neighbours unite to clear, cultivate and fence in a portion of forest land, and one out of the number neglecting to build his portion of the fence wild hogs or cattle shall destroy the corn, the person so neglecting to construct his fence shall be compelled to make good the corn which shall have been destroyed.

If a man steal the materials of a fence and the owner meet him he shall be authorized to seize whatever he has about his person, such as a kriss, cleaver, knife, or spear, to bind the offender and, if a free man, to carry him to the Magistrate or if a slave to his master.

If a person go to hunt with toils, or nets or decoys, or to fish in rivers or lakes, it shall not be lawful for the person in authority over the land to hinder him, for the animals he goes in quest of are wild animals.

If however a man take a rich bee-hive without the knowledge of the owner of the ground, it shall be lawful for the latter to seize it and take it from him, and he shall be further fined to the extent of half a tahlil. It is true the bees are wild animals but the hives afforded the owner of the ground a regular and certain revenue.

#### *Client and Agent.*

If a man appoint another his attorney or agent in a matter concerning gold, silver, cloth, corn, or any thing else whatever, and say to him "deliver such and such things to my brother," and the agent does so, there shall be no dispute concerning the matter. But if such agent instead of giving such goods to his principal's brother shall deliver them to his child, or to his heir—he shall be considered to have offended and compelled, if such child or heir be of bad character, to make restitution to the full amount of the property, but if of good character only to the extent of one-half.

But when such a case comes before the Magistrate, he shall demand the letter of attorney, and if none such exist, the agent shall not be compelled to make restitution.

If an agent deliver goods or property contrary to the instructions of his constituent, but with the knowledge and consent of the Magistrate, he shall not be deemed responsible.

#### *Trespasses.*

If a person kill an ox or buffalo in the owner's pen, the offender shall make good the price of the buffalo, and moreover be fined one tahlil and one paha.

If a man without cause kill an ox or a buffalo or a goat grazing in a meadow, his contumacy shall be punished by causing him to pay the price of the cattle so killed and fining him ten mas.

If a man set fire to the forest upon another person's upland ground by accident or otherwise out of season, he shall be compelled to clear the ground effectually so as to fit it for culture.

If in this case the fire shall have been spread by a person of rank upon the upland of the common people, both parties shall jointly sustain the expense of effectually clearing the ground for culture.

If a man going up or down a river against the stream and being fatigued, rests himself at a weir or net, the owner, should he meet him, may deprive him of the fish, but he shall not be deemed to have committed any offence.

If a person however in ascending or descending a river with the tide stop at a weir or net and take fish and the owner meet him, he shall be fined half a tahlil and the fish shall be seized and taken from him.

If any person carry off the pole or boat hook of another, if such pole or boat hook be made of the bintangore wood he shall be fined 5 copangs and if of the tabrao wood 5 mas, as a warning that no one shall make free with the property of another.

#### *Accidents from Cattle.*

If a buffalo or an ox be placed by the owner in a public thoroughfare and wound the passengers with its horns, the owner shall pay a fine of one tahlil and one paha.

If in this case the wounded persons die, the owner of the ox or buffalo shall pay the fine of blood (literally the price of the person) for he has offended by placing cattle where they should not be. This is the custom.

If a vicious ox or buffalo be tied in the forest and in a situation where it is not customary for people to pass and he wound or kill any one, it shall be lawful to kill or slaughter such ox or buffalo.

If a vicious ox or buffalo wound or kill other cattle of the same description, such ox or buffalo shall be secured only, and the owner directed to take care of it, and if any one kill it, he shall pay a fine equal to one-half the price of such ox or buffalo.

If a man stab the ox or buffalo of any officer of state, whether

such animal be dangerous or not, he shall become the slave of the owner of the cattle.

If the ox or buffalo of any other person than an officer of state butts at a man, and he stabs and kills it, it shall be deemed no offence.

If such buffalo being tied in an improper place, is stabbed by any one without having butted at him, the person so stabbing shall be fined in the full value of the ox or buffalo.

If a vicious ox or buffalo be doing mischief at or near a fenced dwelling, it shall be lawful, if at night, to kill such ox or buffalo. But if he be killed in the day time, the person killing shall restore half the price of such ox or buffalo.

If in such a case the ox or buffalo be afterwards killed in the plain, the forest, or the highway, out of malice, the offender shall restore the value of the ox or buffalo and be fined ten mas.

If a man secure a vicious buffalo for the owner which he could not secure for himself, he shall receive a reward of one-third of the value of the buffalo.

If in this case the buffalo has not been exceedingly wild, the person securing him shall receive, if the buffalo be worth half a tahl, a reward of one mas, and if worth one paha of two copangs.

If in this case the buffalo or ox have been so exceedingly wild as to be impatient of the sight of a human being, the person who secures it shall receive a reward of one-half his value.

#### *Wrecks.*

If persons meet others shipwrecked at sea, and the latter say to the former, "take us and sell us or keep us as your slaves, but save our lives for we are perishing"; and they are rescued accordingly and are clothed and fed and it happens when both parties reach the land, that the shipwrecked persons are offered for sale, the magistrate in this case shall give redress and direct that one-half their estimated value shall be given to those who have rescued them.

If persons meet others at sea in want of provisions only and relieve them, the persons so relieved shall not be considered as slaves, but the magistrate shall direct them to pay to those who relieved them, each one paha.

If shipwrecked persons are taken off a desert island, they shall

not be considered as slaves, but there shall be paid to the persons rescuing them, for each free man 5 mas, and for each slave 7 mas.

If a fisherman find other fishermen at sea after being wrecked and without a boat, the person rescuing them shall be entitled to one paha from each of the persons rescued.

If in this case the fishermen have only lost their sails and paddles and they have still got their boat, they shall only pay a ransom at the rate of two mas each individual.

If a boat which has drifted, be found by any one beyond the station of the fishing traps or weirs, such person shall be entitled to one-half the value of the boat recovered; but if such boat have drifted as far as the fishing traps or weirs, the recoverer shall be entitled to a ransom of one copang if such boat be five fathoms long, but if less two candarins.

But it shall not be lawful to demand any ransom for a boat or vessel which has drifted, either when such boat has been cut from her mooring or has been stolen. Neither shall it be lawful to demand a ransom for the king's boat or the boat of any person of high rank belonging to the country, for the person who recovered a boat belonging to them must rely upon their bounty.

If property be found in a boat which has drifted to sea, but not out of sight from the shore, the person who recovers the boat shall be entitled to one-third of the property, and the boat itself shall be subject to the customary ransom.

But if such boat shall have drifted to sea out of sight from the shore, the property in her shall be equally divided between the person who recovers the boat and the owner.

If one of the crew of a vessel find gold, silver, or other valuables, the commander shall be entitled to three-fourths of the amount.

If any one of the crew of a vessel, be he who he may, find a runaway slave, such slave shall be considered the property of the commander, and if the true owner claims him, he shall pay a ransom equal to one-half the price of the slave.

If persons be found either shipwrecked at sea or stranded upon the shore, each person so saved shall pay to those who rescue them half a tahlil.

If the persons so wrecked or stranded have saved their property they shall only pay one paha.



*Accidents during a famine.*

If either through the act of God or the invasion of an enemy, the country be afflicted with a famine and the poor shall say to the rich "give us food and let us become your slaves and sell us," and those who have food give it, and it afterwards comes to pass that the famine disappears, and those who supplied the food are desirous of selling as slaves the persons who are thus relieved, the Magistrates shall not permit it, and the persons relieved shall be considered indebted only to the amount of one-half of their estimated value.

If in such a case the person relieved be the slave of another, such slave shall work for the food which he received from four to six seasons, according to the circumstances, and then be restored to his master.

If in the case the slave should die in the employment of the person who has relieved him, and the matter be made known to the Magistrate, the latter shall not be compelled to make good the price of the slave, but if due information be not given to the Magistrate, he shall pay one-half of the estimate value of the slave.

*Desertion.*

If a strange slave from abroad run away in the country, he shall not be restored, but through the special favour of *the great*.

If a slave run away to a distant dependence of the city as far as one or two days' voyage, he shall be sold, and one-third of his price shall go to the chief of the district, and two-thirds be restored to his master, but if such slave run no further than the port (qualla) his ransom shall only be three mas.

If a slave run from within the walls of the town to the outside of the fort, his ransom shall be two cupangs. This is the custom of the land.

*Theft and Robbery.*

If a gang of thieves commit a robbery and one of the party only enters the dwelling, that individual alone shall be punished by amputation of the hand, and the rest suffer correctional punishment, which correctional punishment is as follows:—The criminal shall be mounted on a white buffalo, have a posy of the shoe flower stuck behind his ear, shall be shaded by a dish cover of leaves

in room of an umbrella, and shall have his face streaked with lime, with charcoal and with turmeric, and in this state shall be conducted through the town in mock procession, with the beat of the Crier's gong, and should the stolen property be found it shall be suspended round his neck. Should the property have been made away with—in the event of the robber being a free man, he shall become the slave of the owner of the property, and in the event of his being a slave, his lord or master shall make restitution of the stolen goods.

A thief convicted of stealing the produce of a garden, such as sugar-cane, ananas, betel leaf, areca nut, fruits or garden stuffs shall not suffer mutilation.

Should such thief be caught in the fact during the night and be stabbed to death by the proprietor of the garden, he shall die and no notice be taken of his death.

If a garden be robbed and the thief not be discovered until day-time, the Magistrate shall fine him ten mas, and cause the stolen property to be hung round his neck, and in this condition cause him to be carried in mock procession round the town.

Should the stolen property have been consumed the culprit shall be ordered to make pecuniary restitution as well as pay the mulct of ten mas.

If a man steal a prahu and it be found by the owner, the thief shall make restitution of the prahu, as well as pay the amount of the hire which might have been earned by such prahu and the punishment shall be a mulct of ten mas. This is the law respecting all persons who steal prahus.

If a man steal a buffalo, ox, goat, fowls or ducks from their pens or coops, he shall be fined one tahl and one paha, and be made to restore the stolen cattle or poultry.

If a man steal a goat from under the flooring of a house the Magistrate shall cause the thief to make restitution and fine him ten mas.

In this case if the thief be a slave his master shall be compelled to make restitution. These rules are according to the law of custom, but by the law of God the thief shall only be required to restore the prices of the animal stolen without paying a fine.

If a man steal the slave of another and conceal him in his

house, and such slave be there discovered, the goods and chattels of the offender shall be subjected to confiscation.

If a thief running away with a slave conceal such slave not in his house, but in a forest or in a boat or vessel, he shall only be fined 5 tahils.

If a man steal a goat he shall be made to restore the value of the animal, be fined 5 mas, and be upbraided before the multitude.

If any of the crew or passengers of a ship steal or pilfer articles of gold or silver or any other property, their punishment shall be the same as if on shore.

If a slave on board a ship commit theft and give the stolen property to his master, who does not make the affair known to the commander, the slave shall suffer amputation of his hand and the master shall be fined the usual fine for receiving stolen property.

If a slave on board a ship accuse a freeman of a theft and there be no witnesses and no evidence, he shall be punished as if on shore, that is to say suffer amputation of a hand, or pay the customary fine of one tahlil and one paha, because he has presumed unjustly to accuse a freeman.

#### *Kidnapping.*

If a man carries off to sea or into the interior beyond a day and a night's journey, the retainer of another without the permission of his chief and such retainer die, the person so carrying him off shall forfeit the full amount of his value or furnish a substitute for the benefit of the chief; should the distance in this case not exceed half a day's journey no penalty shall be incurred. But in the case of freemen, by the law of God no substitute nor penalty shall be incurred.

If a man kidnap a slave belonging to the king it shall be lawful to put him to death, and his property shall be confiscated.

If the slave be the property of the first minister or any other great officer of state and the person convicted of taking him away be the commander of the ship himself it shall be lawful to put him to death.

If the person so offending be one of the crew, the commander shall be fined in the sum of ten tahils and one paha, and the offender shall suffer death.

If the kidnapped slaves belong to an ordinary person the

offender shall be either put to death or fined in the sum of ten tahils and one paha, at the discretion of the Magistrate.

If a commander kidnap the slave of the intendant of the port he shall be put to death, and all his property confiscated or pay a fine of one catty and five tahils.

*Offences against the Marriage Contract.*

If a man pay his addresses to a betrothed woman (to whom a marriage token has been given) with the knowledge of her parents, the person to whom she was betrothed shall make complaint to the Magistrate, who shall fine the parents in double the value of deposit or earnest betrothing, and the person so paying his addresses to the amount of ten tahils and one paha, or, if poor, five tahils and one paha.

If the person so paying his addresses be ignorant the woman is betrothed, he shall not be subject to fine, but such fine shall be levied threefold on the parents for having encouraged his addresses.

If the person so paying his addresses be ignorant of any previous engagement and the parents do not encourage his addresses, neither party shall be considered to have offended.

The cases in which it shall be lawful to return the deposit or earnest of betrothing, without incurring a penalty, are four; viz. 1st, when the parents have discovered after receiving the marriage portion that the intended bridegroom is a mean person; 2nd, when they have discovered he is insane; 3rd, that he is tame and spiritless; 4th, that is labouring under some grievous bodily disorder, such as impotence. And 5th, that he has already another wife of which he had not informed the parents.

And the cases in which it shall be lawful for a man to require his deposit or earnest of betrothing to be returned, are three;—viz. When the person paying his addresses has discovered that his betrothed bride is a slave; 2nd, that she is subject to some infirmity of body or mind; 3rd, that she is liable to some loathsome complaint, such as an obstruction of blood or leprosy, and lastly that she is insane.

If a slave pay his addresses to a betrothed person of his own condition he shall be fined ten mas and no more.

*Adultery.*

If a man attempt to seduce a married woman, and the husband

complain to the Magistrate, the Magistrate shall cause the offender to humble himself before the offended husband by making him an obeisance in open Court. If he refuse to make the obeisance he shall be fined ten tahils and one paha at the discretion of the Magistrate.

If a man attempt to seduce a married woman and the husband kill him, the slayer shall be fined five tahils and one paha, became the offender only attempted seduction, which is not a justifiable cause of homicide, excepting always however in the case of men of very high rank.

If a man attempt to seduce an unmarried woman and the parents complain to the Magistrate, the offender shall be fined two tahils and one paha, and if the parties appear a suitable match he shall cause them to be married, the offender paying to the parents the customary pecuniary marriage consideration.

If a man attempt to seduce a female slave the property of another, he shall be fined five mas, but should he actually have cohabited with her, he shall be fined double that amount.

If a man deflower the slave of another, he shall be fined ten mas, for he has committed violence.

If a man deflower a free woman, the magistrate shall call the offender before him and direct him to marry her, which if he refuse he shall be fined three tahils and one paha and pay the customary marriage consideration.

By the law of God should the woman upon whom the rape has been committed; be a married female, the offender shall be stoned to death, and if unmarried he shall receive eight stripes.

If a man falsely accuse another of adultery, by the law of God he shall receive 80 stripes, but by the custom of the country he shall be punished, if a free man by a fine of ten tahils, and if a slave of 2 tahils and one paha, or one-half of his own price.

If free persons being on board a vessel and either of the parties being married are detected in criminal conversation, the commander shall direct the whole crew to fall upon them and put them to death. This is the custom.

If the offenders be free persons and unmarried, they shall each receive a hundred blows and the commander shall cause them to be married.

And if they decline to comply, they shall be fined one tahl and one paha and also be forced to marry, that the stain may depart from the woman.

If a free man have criminal conversation with the slave of another, such free man shall be thrown upon his hands and be made to pay the master the slave's price twofold.

If however in this case the slave have been pregnant by the master, the offenders shall both of them be put to death.

Even if the slave have not been pregnant but have long lived with her master as if she were his wife, it shall also be proper that the offenders be put to death.

If a free man have criminal conversation with the wife of one of the crew, the husband may put him to death without incurring any penalty, but neither shall the woman be spared and she shall also be put to death.

If in such a case the woman runs for protection to the commander, he ought, if a just man, to put her to death, or on consultation with the crew, do what may be necessary to give general satisfaction.

If a man jest or toy with the concubine of another before witnesses, he shall be thrown upon his face and shall make good her price to her master.

If a slave is caught in criminal conversation with another slave, the whole crew shall fall upon them and beat them. This matter rests with the chief of the midship.

#### *Affrays.*

If there be a quarrel or altercation between two persons and stabbing ensues between them, and a third party assist them by blows, stabbing or cutting, or in any other manner, and such third party be stabbed, struck or killed, no redress shall be given by the magistrate, for he is guilty of the offence of interfering in a strangers quarrel.

Thus also in quarrels arising in unlawful connexion between the sexes.

The cases in which it shall be lawful to interfere in a quarrel, are in assisting a husband against an adulterer; an intimate friend engaged in a just quarrel, and the object of oppression, and a single person overpowered by numbers when he is unable to make

his way for protection to the prince or chiefs, or is ignorant and unskilful in representing his case and unable to contend with his adversary.

If a man invite another to an entertainment and the guest becomes intoxicated, and in this situation kills, stabs, wounds, or inflicts blows, and the host regarding his own safety alone makes no attempt to secure him, such host shall be fined two tahils and one paha, or if poor, shall receive correctional punishment, consisting in being carried in mock procession through the town to the beat of the public gong.

If the host in this case have secured the intoxicated person, he shall pay only a fine of one tahlil and one paha or correctional punishment if unable to pay.

With respect to the guest so offending, it shall not be lawful to inflict punishment on him when in a state of inebriety or madness, but when he comes to his senses, punishment shall be inflicted.

#### *Assaults.*

If a slave cut and wound a free man, he shall be forfeited as a slave for life to the king.

If a freeman cut and wound a slave, he shall be fined half the slave's value, or if very poor ten mas.

If a slave give a free man a slap on the face his hand shall be cut off.

If a free man give a slave a slap on the face, without offence on the part of the latter, he shall be fined, if poor five mas, if rich ten mas. But if the slave should have been insolent, the free man shall not be considered in fault.

If a slave give abusive language to a free person, he shall receive a blow in his face, or have a tooth extracted.

If any person break the peace, by attempting to assassinate, by wounding, or by beating another, the offender shall unquestionably be fined according to his offence, the highest rate of fine being five tahils and one paha, the second two tahils and one paha and the lowest one tahlil and one paha.

If any one, although unpremeditatedly, aid or assist in such offence, he shall be fined one third of the mulct inflicted on the principal.

If a slave, whether male or female, hit another slave a slap on the face, the offender shall be fined to the extent of half the price of the slave assaulted. By the law of God he who strikes shall be struck again, and this is the law of retaliation and is named justice.

### *Homicide.*

If a man kill even a criminal without the knowledge of the prince or chiefs, he shall be fined ten tahils and one paha; even if such criminal resist and be secured after such resistance still it shall not be justifiable to put him to death.

It shall be justifiable to slay a person caught in adultery with one's wife, an insolent scoffer, a thief that cannot be apprehended and one who offers another a grievous affront, as giving him a slap on the face or other such insult.

Even in these cases, however, if the injured person slay the offender after complaint made to the magistrate, he shall be fined ten tahils and one paha.

If an injured husband pursue an adulterer into the enclosure of a third party, with violence, and be killed by such third party endeavouring to preserve the peace, such killing shall be deemed no offence.

If a person conveying a royal mandate takes the wife of another, it shall not be lawful for the husband to put him to death, and any person so doing shall suffer death or be fined one catty and five tahils.

If a slave or debtor run amock in the city it shall be lawful to kill him, but when once apprehended, should he be put to death, the slayer shall be fined ten tahils and one paha.

If such persons run amock in the villages or distant places, the fine shall be only five tahils and one paha.

If a person running amock is wounded and being apprehended is then put to death, the slayer shall be fined one tahlil and one paha.

If a person running amock be mortally wounded and afterwards put to death, the slayer shall pay merely the charges of the funeral.

The crimes which are to be pardoned by the prince alone and not by the Magistrates, are killing, taking married women and



(Maharajah Lelah) committing crimes of a violent and outrageous character. With the exception of these the Magistrate is empowered to pardon all others.

If a slave commit a murder it shall be lawful for a third person to put him to death, when the affair occurs in a distant situation and there is a difficulty in securing the criminal, but if it take place near authority, the slayer shall be fined five tahils and one paha for having killed the slave without the leave of his master or those in authority; in this last case, however, should the slave have been mortally wounded, it shall be lawful to put him to death.

If a freeman kill a slave of the king he shall be fined in the value of the said slave seven times seven-fold, or if he escape the fine, he shall be put to death or become for ever with his family and relations slaves to the king.

If a man of high rank kill a slave of the king he shall be fined one catty and five tahils, and not put to death, but if the slave shall have been killed by such great man for some crime nothing shall be said on the subject.

If a slave commit a theft and be apprehended and put to death, the slayer shall be fined half his value, one half to go to the Magistrate and one half to his master, for the offence of not informing the Magistrate.

If a person apprehend a slave of the king committing a theft and then kill him, he shall be fined ten tahils and one paha, but if he put him to death in the act of committing a theft he shall have committed no offence.

By the law of God a thief shall not be put to death but suffer amputation of his hand.

If the owner of stolen goods follow the thief and find the property upon him and the thief make resistance and is killed it shall be no offence on the part of the slayer.

In such a case should the thief make no resistance the slayer shall be fined to the extent of half the price of the slave.

If a slave shall be killed by the owner of the stolen property by mistake, the slayer shall pay a fine to the amount of twice the value of the slave.

If a freeman strike a slave and the slave stab and kill him in return he shall be deemed to have committed no offence.

But by the law of God whoever kills shall himself be put to death, and this is called *adil* or justice.

If one freeman hit another freeman a slap on the face without offence and the insulted person stabs and kills the offender, he shall not be deemed in fault should the affair have taken place in presence of witnesses.

If a freeman give abusive language to the wife of a slave and the slave in return kill the freeman it shall be deemed no offence, for it is written that no married woman shall be made light of; this is the law of custom, but by the law of God whoever kills shall himself be killed.

If a person who receives a blow on the face kill the assailant it shall be deemed no offence should he kill him within three days, but if after this period, the slayer shall be fined one catty, for by so doing he has conducted himself in an unmanly manner and this is the law of custom. But by the law of God the slayer in this case shall be put to death.

It shall be lawful for the four following officers to inflict the punishment of death under the following circumstances:—The Bandhara in the absence of the king or within his own district. The Tamunggong when apprehending criminals. The Shabandar when conducting a vessel, should his orders be disobeyed. The commander of a vessel when at sea, for he is then in the situation of a king, but if on his return to port it shall be discovered he has put an innocent person to death or inflicted the punishment of death without sufficient cause, he shall be subjected to the highest class of fine.

The case in which it shall be lawful for the commander of a vessel to inflict the punishment of death shall only be for the offence of taking the wife or concubine of another person.

If a man enter a fenced dwelling (kampong) to steal or to intrigue with women, and the owner of the dwelling be aware of it and kill him on the spot, or when pursuing him between two fenced dwellings, it shall be justifiable, but should he meet the offender after the intervention of a single day, and then slay him, the slayer shall suffer the punishment of the law.

If a man trespass upon a fenced dwelling and in so doing kill any one, he shall be fined one catty and five tahils, according to

the discretion of the Magistrates. But by the law of God whoever kills shall himself be put to death.

*Hiring Assassins and Bravos.*

If a man, in a case when it is allowed, hire an assassin to kill another and the assassin himself be killed, his employer shall be deemed in fault and be fined ten tahils, and all the expenses of the funeral of the assassin, for he has offended by not giving due information to the Magistrate.

If a man in an allowed case hire an assassin with the knowledge of the Magistrate, and the assassin be killed, the employer shall not be fined, but simply charged with the funeral expenses.

If a person hire an assassin, and he succeed in destroying his employer's enemy but be himself also killed, the promised reward shall be paid to his family or relations and his funeral charges shall be defrayed.

If a person hire an assassin, and he succeed in killing his employer's enemy, but be himself wounded, the hirer shall pay the expense of his cure, as well as the promised reward.

The law is the same in regard to persons hired to assault or affront by blows, and if such persons be hired without the knowledge of the magistrate, the hirer shall be fined five tahils.

If a man be hired to beat another, and the person beaten should happen to die in consequence of the blows, the hirer, should the deceased have been a slave, shall be compelled to restore his full value, or if a freeman shall suffer death or pay the customary commutation of ten tahils and one paha, and the hired person shall also be punished at the discretion of the magistrate.

*Accomplices.*

If a man be convicted of being an accomplice, he shall suffer the same punishment as a principal.

*Defamatory Words.*

If a man accuse another of criminal conversation with a married woman, and the accused win in the ordeal, the accuser shall either suffer the punishment of death or at the discretion of the magistrate be fined to the extent of ten tahils and one paha.

But by the law of God these punishments are not inflicted and the criminal shall only be directed to cry mercy, and ask forgiveness for his offence.

*The Ordeal.*

If one make an accusation and another deny it, and there be no evidence, the magistrate shall direct the parties according to the custom of the country to contend by ordeal; that is, by diving under water or submerging the hand in melted tin or burning oil. The person who fails in this trial, shall be deemed guilty and be put to death, fined, or otherwise dealt with, according to the custom of the country.

*Contract.*

If the commander of a vessel engage to carry passengers to any particular place and is driven back or otherwise does not fulfil his engagement, he shall restore the passage money.

*Offences against the Government.*

If a man forge the king's name or authority he shall be put to death or have his tongue slit or be scalped.

If a man be convicted of giving false reports to the first minister, he shall have his face streaked with charcoal, lime and turmeric, or be fined two tahils and one paha.

If a man forge the name or authority of a person of rank he shall be fined one tahlil and one paha, or have abusive words applied to him before the multitude, and if he offers resistance he shall be put to death; for the grandees are the props of the royal authority.

The offence of contumacy (Maharaja Lelah) is of two kinds, first putting a criminal to death without the knowledge of the prince or chiefs, and second, forcibly entering a fenced dwelling, and whoever is guilty thereof, shall be fined ten tahils and one paha.

*The discipline and rules to be observed at sea.*

These are the laws for all vessels, large and small, and for boats.

The commander is like unto the king, the pilot like the first minister and the captain of the anchor like the first magistrate. The chief of the larboard and starboard side and the chief of the midships resemble the officers of a court called Sida Sida, the officers of the vessels are all considered under the direct authority of the commander, and the crew under the immediate orders of the chief of the midships.

If the chief of the midships give an order to any one of the crew and the latter disobey it, he shall receive seven strokes, but

without raising the elbow from the side, and if he still prove refractory he shall receive 40 stripes.

If one of the crew engage to perform a voyage and desires to be discharged before it is completed, he shall, if a person of consideration, pay one tahlil and if an ordinary person one paha.

If a man chatters or talks idly, whether a seaman or a passenger, he shall be treated as a person so offending before the king; that is, he shall be publicly reprov'd and if he make any answer the whole crew shall fall upon him and seize him and strike him a blow over the mouth with the clenched hand.

But if the offender in such a case ask forgiveness for his offence it shall be incumbent upon the commander to grant it.

The punishment of death shall be inflicted on persons guilty of perfidy to the commander or such as conspire to put to death the commander or any of the officers of the vessel.

If a man wear a kriss or other weapons on board the ship when the rest of the crew is unarmed and his conduct in other respects appears suspicious, it shall be lawful to put him to death forthwith, to prevent the mischief which he meditates, but this must be done before witnesses that the crew may not be liable to suffer inconvenience from the exercise of such an authority.

If one hires a seaman to proceed on a voyage, it shall be incumbent upon him in every case to make an agreement for three years, three months and three days, and if the seaman does not consent he shall not engage him.

If before the expiration of the period agreed upon a seaman shall require his discharge he shall be compelled to return the advances made to him as well as pay a fine of 10 per cent upon the amount.

If in working the ship any one interfere with the orders of the pilot he shall be punished with four strokes of a rattan and if he declines being beaten, he shall be fined four hundred small coins of Java (pitis) which sum shall be given in charity on the return of the vessel to port, as an oblation to avert calamity.

A skilful pilot should understand the commencement and the end of the season for sailing, the revolutions of the sun, moon and stars, the course of the winds, the depths and soundings of the sea, the bays, reaches and headlands which are in his course, the shoals

and sand banks, the rocks and the channels, the islands whether naked or covered with forest, the straits both long and short.

If a pilot forgets his reckoning or goes astray and the vessel strikes upon a rock or shoal and be lost the pilot shall suffer death.

If a pilot offers to quit the ship, the crew shall fall upon him, seize him and on the return of the vessel to port deliver him over to the Magistrate for punishment, and if he resist it shall be lawful to put him to death.

If it become necessary to throw cargo overboard for the safety of the vessel, this shall not be done by the commander except in consultation with the officers and crew, and the goods shall be taken for this purpose in proportion to each man's share of the cargo.

If a vessel or vessels meet the fleet of the king, every one, great or small, freemen and bondsman, man or woman, rich or poor, every soul on board shall pay the customary contribution (Lentang Paiair.)

If a country visited by vessels be invaded by an enemy and in a state of confusion, the commanders and crews of all such vessels, great and small, shall pay to the king the accustomed contribution (Tolak Sanjata).

If vessels sail in company and a storm coming on in the open sea, one runs foul of another which is wrecked in consequence, the magistrate shall cause the vessel so running foul of the other to pay two-thirds of the loss incurred, for the sea is wide and her crew might have contrived to avoid the danger.

If any one presume to sit in the second cabin (Balailanting) except upon business of importance he shall be punished by 5 strokes of a rattan.

If any one presume in like manner to enter the third cabin (Balaibujar) he shall receive 3 strokes of a rattan.

If any one of the crew enter the first cabin (Putaran Lawang) without business he shall receive 6 strokes of a rattan.

If any one enter the apartment of the captains of the larboard and starboard sides and sit down therein he shall be punished with 3 strokes of a rattan.

If a slave escape from on board the ship, the officers keeping the watch shall be compelled to make good his price and the

watchmen on duty shall be punished with 60 strokes of a rattan.

If a vessel drive from her anchor and be wrecked, the officer on guard shall be *publicly reproached*, and the watchmen shall each receive 80 strokes of a rattan, or less, according to the measure of their offence.

If a vessel drives from her anchor, and be in imminent danger but not wrecked, the watchmen shall be punished with 20 strokes of a rattan only.

Four things are especially incumbent on those who keep the watch; viz, to attend to the state of the well, to watch the weather, to look out for an enemy and to take care of fire.

If any one lose the watch taken (*orak orak*), he shall be fined one *tabil* and one *paha*, and be compelled to bail the vessel as long as she is at sea, unless the commander shall have compassion upon him.

If those who have the watch neglect to look after those whose business it is to bail the ship, they shall be punished by 15 strokes of a rattan.

If a vessel meet another at sea and those who have the watch, whether from being asleep, from sloth, or neglect, do not hail her, the officers shall be fined to the same extent as for permitting the escape of a slave, and the watchman shall receive 70 strokes of a rattan.

If persons come on board a vessel and the ladders give way in ascending and they meet with any accident, the commander shall be deemed in fault and be made to pay for the cure of the persons so injured.

If persons visiting a ship, burn or destroy the ladder, they shall be fined 2½ *mas*.

If the slave of any one on board the ship be guilty of burning or destroying the ship's ladder, his master shall be fined four strings of the small coins of Java, and the slave receive 40 stripes.

If persons quarrel on board a ship, and stab or wound one another, the offenders shall pay a fine of four strings of the small coins of Java.

If any of the crew quarrel and, drawing weapons, go aft beyond the ship's well, they may be put to death, or if secured be fined one *mas* or 5 strings of the small coins of Java.

If any of the crew quarrel, and one pursue another as far as the poop, even without drawing weapons, it shall be lawful to put them to death, but if he be secured he shall be fined 2 laxes and 7 strings of the small coins of Java (pitis).

If an officer (kiwi) quarrel with the commander and come as far aft as the poop, it shall be lawful to put him to death, but if he be secured and humbles himself before the commander, bowing his head and asking forgiveness, he shall only be fined 4 strings of the small coins of Java, and be made, as soon as he arrives at port, to give the commander a buffalo and a feast to himself and the crew.

When a vessel arrives at a port, the commander shall have the exclusive privilege of trading for 4 days, before the rest of the crew, after this the pilot and the officers shall trade for 2 days, and afterwards the trade shall be free to the whole of the crew.

In making purchases no one shall be permitted to outbid the commander.

If any one of the officers or the crew outbid another in the purchase of goods, he shall not be permitted to retain the goods so purchased, but they should be given to the first purchaser.

If the commander of a ship when at sea desire to put in at an island, bay or cave, he shall be considered blameable if he do not consult with the whole crew thereupon.

If the commander of a vessel desire to cross over from one shore to another, it shall be in the like manner incumbent upon him to consult with the crew.

If the breadth of a vessel's beam be from 3 to 4 fathoms, the allowance of tonnage to each ordinary man of the crew shall be one coyan. If the breadth of the beam be 2 fathoms and a half, such allowance shall only be half a coyan, and if the breadth of the beam be no more than 2 fathoms, the allowance shall be 300 gantangs.

If it should be late in the season and the commander after receiving seven days warning from the officers does not sail, the whole responsibility shall rest upon himself.

If a vessel have lost the season from the neglect of the commander, he shall be compelled to make good to the crew the freight of their respective allotments of tonnage.



If the season should be far spent, and the officers of a vessel occasion delay on account of the recovery of their debts or otherwise, the commander after giving 7 days' warning may sail without them, without incurring any penalty.

If in such a case the season should not have been very far advanced, the commander shall wait for the officers 7 additional days.

When the season is not far spent, the commander after making the signal for sailing shall wait 10 days for the pilot or other officers and 3 days for the crew.

If an officer resolves to quit the ship at a bay, cove or island, he shall forfeit the freight of his allotment of tonnage.

If a man give charge of the compartment of the vessel containing his goods to another, and they be lost, the person receiving charge shall be compelled to make good half of the loss, the owner producing competent witnesses or making oath.

If any one presumes to sit at his ease on the prow of the vessel with his legs dangling down and looking towards the poop, he shall be deemed to have committed grievous offence and to be wanting in respect to the commander and the crew, and he shall be punished with seven blows, and a fine of one gold tahlil and one paha.

If any one of the crew make use of a mirror, placing it opposite the poop of the vessel, he shall, out of respect to the wives or concubines of the commander who might thereby be seen, be punished by seven stripes and a fine of one gold tahlil and one paha.

If a man fish at the bow of a vessel while at anchor with a hook and line, and the line be carried down towards the stern and be taken hold of by any one, and the fisher mistake the resistance occasioned thereby for a fish and pull, and the person be hooked, such person shall become his property, even if the concubine of the commander.

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SKETCH  
OF THE  
RHIO-LINGGA ARCHIPELAGO.\*

By G. F. DE BRUYN KOPS. Lieutenant, Dutch R. N.

BEFORE describing the population and what has relation thereto, this will be the most convenient opportunity to say something of the different inhabited places which are found in this Archipelago.

The most important is the seat of the residency, Riouw, lying on Tanjong Pinang. Although small, it is a pretty place, lying on a deep bay or rather mouth of a strait. It is agreeably situated, surrounded by hilly ground generally cultivated, varied by the fort Kroon-prins, some detached groups of trees and Chinese graves. In the inner harbour, especially, there is a very pretty panorama. The residency house, a neat building under high trees, lies on the shore, at the foot of the hill on which is placed the fort, which crowns the whole with its shining white walls. There is a flag-staff on this hill, serving as a telegraph for ships coming in. This hill runs with a steep point into the sea. Behind it is seen an undulating back ground with the high trees of Batu Itam. On both sides of the residency house, are the European residences of the officials, all surrounded by gardens containing many trees, and succeeding them, on the edge of the bay, Malay houses, raised some feet from the ground on stone or wooden pillars. Further on is the campong of the Amoy Chinese, and some native campongs, together with the small islet Bajam in the middle of the bay. On the west side the eye rests on the island Peningat or Mars, with its two hills, scattered campong, white mosque with four turrets, a small battery, a white mausoleum and other buildings. Between Mars and Tanjong Pinang, along the strait, we see the small island Soreh, entirely covered with cocoanut trees and the low Tanjong Stemu; on the other side of Mars, we see Terkoli, and behind it Pulo Loban, and the entrance of Rhio Strait; a little further on Pulo Loos, and Sengarang with the stone quarry, and not far from it, to the north, the extended campong of the Canton Chinese, with its numerous huts covered with attap, built close to each other; and beyond that a Bugis campong. Further up is

\* Continued from p. 402, vol. viii.

the bay, beyond which the tops of some mountains indicate the south coast.

A jetty 300 ells long, built on piles, on which is the landing place and the harbour office, leads to the town. To the left is the road to the campong of the Amoy Chinese. On both sides of the broad road are the houses, some of two stories, some of one, covered with tiles. In the middle of the Campong stands the temple surrounded by a brick wall.

On the sea side, behind the houses of the campong, are the cane huts of the fishermen and poor people.

A side road leads from the campong to a large plain in which is the neat Protestant church. This building was erected in 1827 by subscriptions raised in Rhio and Java, and a contribution from government. The other civil public buildings are, a magazine for provisions, a school-house, a convict quarter, a house for the Military commandant and an infirmary. The fort Kroon-prins was built in 1820, and is situated on a hillock 200 feet high. It consists of a dry ditch, 10 feet deep and 20 broad, a wall of hewn stone with four bastions and a lunette. In the fort are the barracks, quarters for the officers, powder magazines, treasury and civil gaol. It commands the approaches to the harbour, but would be of little avail against an European foe, as it has no supply of water, which is only to be found at the foot of the hills, and it is overlooked by a neighbouring eminence.

The campong of the Canton Chinese lies on the other side of the bay. It is not so neatly built although more populous than the Amoy one. The houses are all of attap and stand on piles in the water. These houses communicate with each other by means of stages made of split nibongs, over which it is difficult to walk unless you are accustomed to it. The houses are so close to each other, that in case of fire the greater number would be destroyed, as has, indeed, several times happened. The only house built of stone is that of the Captain China.

Very pretty walks are to be found in the neighbourhood of Rhio, extending in all directions through the country. The rocky nature of the ground renders it difficult in general to keep the roads in good order. Not far from the town is the European burying ground, surrounded by a wall and having some monuments in it. On the same road is the native burying ground, as well as

the Chinese graves, the last being built on the slopes of hills.

Beyond the immediate neighbourhood of Rhio there are few or no roads and only here and there a foot path. If I am not mistaken there was formerly a design to construct a broad road round the island of Bintang, but the disappointment in the large expectations which were cherished in respect to Rhio has prevented the work being undertaken.

The island Mars, called by the Malays Peningat, lies at about 1,500 clls from Tanjong Pinang. This small hilly island is the present residence of the Viceroy and his nobles. An extensive campong lies on the south and east sides. The residence of the viceroy has many spacious buildings, amongst which the balei is conspicuous. A high gateway with a round roof, besides a wall on either side, protects the entrance. Not far from this stands the new mosque, a building, it is said, on the model of the great mosque at Mecca. With its four minarets and cupola, all covered with white plaster, this building has a striking appearance seen at a distance, which however diminishes on approaching, owing to the want of proportion in it, especially the small height of the roof from the ground and the very short but unusually thick pillars which support it. The mausoleum of the late viceroy is situated at the foot of a hill. A capital stone jetty, with a landing place built on piles, having on either side a building for the receipt of import duties, is of the same date as the mosque, 1848-49. Amongst the other buildings, the stone-house of the viceroy's brother, Rajah Abdulla, is conspicuous on account of its neat appearance and the manner in which it is kept, matters that are very seldom attended to by the natives in these countries. On the north-east point a small benting, mounted with cannon, was built in 1848, which has a flag-staff, from which floats the black flag of Lingga. The north and west sides of the island have no buildings on them and are covered with brushwood. Some fruit trees are scattered up and down the campong.

In former times the princes of Rhio resided at Old Rhio, lying further within the bay, where their graves are still to be seen. The place is now entirely deserted. In the roads there sometimes lay 100 vessels at anchor. The roads were protected by a small fort on the islet Bajam, in the middle of the bay, the ruins of which still remain.

Several of the small islets in the neighbourhood have been given as gifts to different members of the royal family, and are principally covered with cocoanut and other fruit trees. The viceroy Rajah Jaffer gave the island Loos, near Sengarang, to the Resident Elout as a present. This was disapproved of by the government, on which this functionary gave it to the missionary society, as the viceroy would not receive back his gift. It was inhabited by the missionary then stationed at Rhio, who had a house and garden upon it, which, however, have now disappeared.

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The campong Daï, the present capital of the kingdom, lies on the island Lingga, a little within the mouth of the river, also called Daï, which takes its rise at the foot of the mountain, and falls into the sea to the north of the anchorage Klombo. It is a large scattered campong extending on both sides of the small river. Close to the mouth of the river, are about ten miserable huts belonging to fishermen. A little higher up the campong commences. We have first on the right bank the Chinese campong with the fish-market, and small shops for the sale of cloth and provisions. As at Rhio, these are placed under a covered verandah. The floors of these houses, consisting of split nibong, are raised about two feet above the ground. A little further up we find on both sides some Bugis houses, recognisable by their greater ornamentation with carved and festoon work, and from the high roofs, which, with intervals, lie over each other. After these we have the Malay campong, mostly in a miserable and dilapidated condition, surrounded by cocoanut trees and raised about six feet from the ground on posts. Everything here bespeaks disorder and indolence; fallen trees, which have not been removed, all the filth of the houses heaped up beneath them, every where high grass and weeds among the trees, testify how little inclination there is on the part of the inhabitants, to do anything for the improvement of their place of abode. The dalam (palace) of the Sultan is further up on the right bank. A large space, partly surrounded by a wall, is covered with numerous dwellings, some of them of stone but mostly of wood. A gateway gives admission to the inner space, where the mother of the Sultan, his wives, concubines, servants, &c. reside. In front of the Sultan's own residence there is a spacious balei of wood,

with a double verandah round it, one lower than the other. In front of the balei there are some metal and iron guns on slight carriages. Although these are sometimes used for salutes, they are as good as useless, and occasionally cause sad accidents to those who fire them. The roads which traverse the campong, were last year brought into a serviceable state by being raised with sand, formerly they were nothing but mud holes, which were kept in that state by the daily rains. There is a good stone mosque not far from the dalam of the Sultan. With the exception of some of the houses of the nobles and chiefs, all the dwellings are of wood covered with attap, and surrounded by groups of cocoanut trees. The greatest traffic is on the river. We constantly see sampans for ferrying, and also water sampans, which bring drinking water from higher up, for on account of the low, swampy nature of the banks no potable water is to be found in the lower part of the river. The traversing of the river is not a little hindered by the great number of prahus lying in it. They are generally prahu tope and penjajap. At very high water these vessels may be hauled into the river and then lie close to the bank on both sides. If the prahus require to be examined or if they are not intended to be used for some time, they are placed in dry docks, called perkalangan. For this purpose a hole is cut in the bank at right angles with the river, the vessel is hauled into it, the opening is closed by a dam formed of a double row of piles with earth between them, and the water is then baled out. The boat is raised upon some pieces of wood so that every part of it can be got at. We find many prahus laid up in this manner.

About a mile from the dalam a house was begun for the Sultan, intended to serve as a place for recreation and occasional retirement. The plans were prepared in Singapore, but the funds became low and the building was brought to a stand, so that it is still very far from completion.

On Lingga, Sinkep and other islands, we find campongs here and there, which however in most respects are like those already described. A collection of houses, generally placed near each other, without regularity, is sometimes surrounded by a paggar (fence). If the head is a man of consequence he has a balei in front of his house, if not, it is only an ordinary native house. Wherever practicable the campongs are built on the rivers. Bridges are

nowhere to be found, so that people must cross at the fordable places. The roads are not much more than small foot paths where people generally sink up to the ankle in the mud.

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The population of this Archipelago is aboriginal and foreign. To the first belong the Malays and a peculiar wild-living race; the foreigners are Europeans, Chinese, Arabs, Bugis, Javanese and other settlers here.

As these last do not differ in any respects from what we find elsewhere, it will be sufficient to describe them very briefly.

The Europeans settled here are all Government servants or pensioners. There is only one exception to this in a trader on a small scale.

The Chinese are by far the most numerous. According to their origin, they are divided into Canton or Amoy Chinese, who, as already mentioned, inhabit separate campongs and have separate heads. Between these two parties there exists a permanent illwill, which sometimes breaks out into open strife. This is to be ascribed, amongst other causes, to two religious sects called the Chinchihoei and the Kwaniehoei, the followers of which have spread everywhere. They are secret societies, the members of which are bound to secrecy by the most fearful oaths. The members of these societies recognise one another by certain tokens. Their chiefs are to be found everywhere. These two sects do each other as much injury as they can; to this is to be ascribed, amongst other things, the laying waste of the gambier plantations on Gallang in August 1847. Here as elsewhere the Chinese are industrious workmen, traders and cultivators, principally of gambier and pepper. The capitals employed in trade are very trifling, with very few exceptions, and the trade consists chiefly in that of gambier and the retail of provisions, cloth, earthenware and such like. The rowers of the trading vessels between Rhio and Singapore are all Chinese, principally from Canton. They are large strong men, and also work as coolies. The Amoy people are in general much less vigorous and devote themselves more exclusively to trade. The Chinese manner of living is frugal, except in the use of opium, which is very general. The only luxury indulged in by them is at the religious festivals, such as the Loga, Sambayang, Berbut, &c.; but the yearly increasing impoverishment naturally shows its traces

here also. Amongst the amusements is gambling, which is a Government farm, and the wayang. This last is really fine, the costumes were all prepared in China and cost the Captain Oei Banhok f5,000.

As no women can leave China, the Chinese here take Malay women or the descendants of Chinese and Malays. The offspring of such marriages are called baba, in contra-distinction to the China born, who are called Keh. Many hundreds and even thousands of Chinese arrive at Singapore in the months of January and February in the junks, to fly from poverty in their native land and seek a livelihood elsewhere. Many of these come here, and scatter themselves in all directions, where they can barely gain a subsistence. Their desire is, only to acquire sufficient to enable them to return to their native country, in order there to spend their old age and die. For this purpose they live sparingly and send all their surplus money to China; owing to this cause no large capitals are employed in trade or agriculture.

The Moors are mostly all from the coast of Coromandel or Kling. They are not very numerous at Rhio and employ themselves exclusively in trade; scarcely one of them has any capital; the largest does not exceed one thousand rupees, as far as I am aware. Goods sold at Singapore at the public auctions are brought here and hawked about by them. Gain is their only desire, and therefore they practice many tricks and impositions, so that in dealing with them one must be on his guard. One person only is a commendable exception to this. They are a fine race of men, strong and vigorous, dark brown in colour, with expressive features. The few who are not engaged in trade are cattle keepers or servants.

The Bugis and Javanese are only temporary residents, and consist, the first of traders, and the last named, on the other hand, of handicraftsmen. It is chiefly from the island of Bawean that the prahus bring men who hire themselves here for a year and then return home with their savings. The viceroy of Peningat and the princes are of Bugis descent.

The Malays may be considered the aboriginal inhabitants of the archipelago, or perhaps as those who have expelled the former population and replaced them. People are not generally agreed as to their origin. Marsden maintains that they are derived from the kingdom of Menangkabau in the interior of Sumatra. Before



they were converted to islamism they were Budhists. The inhabitants of Menangkabau was divided into four great divisions or families, one of which bore the name of Malayu. From this division the first emigration to the southern part of the Peninsula took place and they founded the town of Singapore, on the island of that name, in the year A. D. 1160 under their prince Sri Turie Buwana. Although this colony was at first known under the name of *Orang dibawa angin* (from the direction of the country of their origin), they soon acquired that of *Orany Malayu* from the name of their tribe in Menangkabau, and the whole country that of *tana Malayu*.

From this colony, and not from their original kingdom of Menangkabau, the Malayan name and nation have spread over the whole archipelago. Johor and Malacca have peopled the islands of Bintang and Lingga, Kampar and Ari on Sumatra, Bruné on the island of Borneo and founded nearly all the states on the Peninsula. This circumstance is decisive regarding the claim made by the princes of Menangkabau to the possession of some of the states above mentioned, the princes of which were willing of their own accord to acknowledge that primitive right, notwithstanding the opposite was shown by the well established superiority of Johor and the existing contracts with the Dutch Company.

Through their extended trading operations the Malays have come in contact with the most easterly peoples, and their language has become the common medium of communication over the whole of the archipelago. To the circumstance that they were the people most addicted to trade and a seafaring life, as also that the language itself is easily acquired, simple and melodious, must this general adoption of it be ascribed. It is now so generally diffused, that from the islands west of Sumatra to New Guinea, from Timor to the Phillipines, we can use this language. It is deserving of remark that notwithstanding this wide diffusion, the language is everywhere almost spoken in the same manner, that is, that there are only very small differences in dialect and that single words differ in application and signification, while on many places very many others are imported, which are not Malay (on account of the intercourse with foreign nations). In the written language there is however no difference, being the same everywhere. This language is that which is used in writing to the

princes and is spoken by them and is that generally used in trade.

Many transformations have taken place in the Malay language. According to Marsden the Malay was originally a Polynesian dialect, which he endeavours to demonstrate by the great similarity of many words of first necessity with those which are still used in the islands to the west of New Guinea; and even an apparent community with the languages of the islands to the east of these last mentioned. In very distant times, which are wholly enveloped in obscurity, the Malay language was refined and embellished by many words from the Sanscrit, which most have reference to the first moral impressions, the first ideas of science or of an awakened intelligence with a young people.

These words appear to have been imported and to have been generally adopted when the Hindoos conquered these countries and introduced their religion and language.

In the 12th century the Mahomedan religion was imported hither, which was probably much promoted by the great trade with Arabia, of which there are traces found so far back as the 9th century. Two centuries later islamism was first introduced into Java. In the year 1847 and 1849, there were found at different places on the sea-shore of the islands Keteer, Keke and Penguyan in the bay of Bintang, a number of objects of Hindoo origin, such as numerous ornaments of very fine gold, figures of Hindoo gods, gold armlets, porcelain cups and dishes, vases and other antiquities, which nowadays are no longer seen or used; but the resemblance between these and what is met with on the coast of Coromandel, affords every reason for believing that they had been buried in the ground on the introduction of the Mahomedan religion when the Hindoos were driven away from this. All were found at only some three or four feet below the surface.

On the Malayan language itself the introduction of the Mahomedan religion had little influence, but a very great one on the manner of writing, for the Arabian characters have so altered the original manner of writing, that we no longer meet with any traces of it, unless we may consider the Battak-writing as a remnant of the former manner of writing.

In the social language very few Arab words have found a place, but in the works treating of religion, morality, laws, arts and

sciences a very extensive use is made of the Arabic. In the written style we find, especially in the commencement of compositions, many words, and even whole sentences, which are pure Arabic. The daily forms of prayer are also pronounced in this language, without most persons, except the scholars and priests, understanding a word of them.

The Malay language, as is generally known, is separated into two parts, or rather into two distinct modes of speaking,—namely, the high or low Malay (*bhasa dalam* and *bhasa dagang*). The first is the court language and is generally used by persons of education. The princes and nobles have some words which they alone use or which are only applied to them, in consequence of which this court language is split into two parts, the *bhasa dalam* and *bhasa bangsawan*, which however seems to me a useless distinction. The high Malay is most used in books, letters, high poetry and similar productions of the fancy. The low Malay or *bhasa dagang*, is, as the name shows, used by the less refined classes of the people, and by foreign merchants as well as in the domestic and common intercourse. It is not so refined as the other but differs less in the words themselves than in the style or syntax. Through the commercial intercourse many words have been incorporated, which betray their foreign origin, so that there are few people with whom anything like a considerable trade has been carried on, whether European or Indian, from whom some words have not been borrowed.

The Malays are of small stature, mostly all between five and five and a half feet in height; a larger stature is an exception. The women are still smaller. The Malays in general are strong and well made although less tall than the Javanese. Deformed persons, giants or dwarfs are very seldom seen amongst them. The few deformities occasionally met with are generally the consequence of sickness, wounds or other external causes. The colour of the skin is brown, varying between light and dark, approximating to the Javanese, but generally, in my opinion, of a darker hue. There is also a slight dissimilarity in the appearance of the features, by which we speedily learn to distinguish a Malay from a Javanese. The countenance is broader and rounder; the cheek bones are more prominent, the chin is rounder, the nose broad and

flat with wide open nostrils, the lips thick and somewhat prominent, the hair long and black (but it is seldom worn so long as by the Javanese). Hands and feet are generally small and well made. The teeth are originally white and regular, but the use of sirih renders them black and the custom of filing them completely ruins them. Very few men have a beard. The few hairs are in general carefully eradicated. There is very little hair on the breast.\* The Malay women are seldom good looking; few have regular features; their mode of walking has something constrained and stiff in it, which is perhaps to be attributed to their being almost wholly confined to the house.

In general the life of a Malay is much shorter than that of a European, which is probably to be ascribed to their uncleanliness, laziness, and excessive addiction to sexual pleasures, so that we often find young men of 18 and 20, who appear old and are weak and decrepit. This is especially the case with the higher classes. Some exceptions, however, are to be found to this, and men of 50 to 60 are no great wonders. On the island Mars there is a man who is above 100 years old. The women have a more aged appearance than the men; they are already on the wane in their 20th year. The children have generally a lively expression.

Their manner of speech is drawling and with a particular emphasis on different words, which produces a kind of singing tone. Some letters, especially the *e*, they can only pronounce in a defective manner. They are slow of speech and use little gesture.

The Malays are *par excellence* a trading and seafaring people; the natural situation of the land, consisting almost entirely of islands, brings this about. This circumstance causes them to differ much from the Javanese, and influences their character, way of living, means of livelihood, manner and customs. Since our connection with India the Malays have always been notorious for their piracy, from which they are not yet entirely free, in spite of the many attempts to put it down. It appears, however, that in earlier times, when the commercial relations with foreign peoples was so much more considerable than later, the Malays were not in general addicted to piracy, but on the contrary, were constantly on their guard against the attacks of Illanun or Sulo pirates, who rendered

\* The expression of the countenance is in general that of dulness and not of good nature, as we notice in the Javanese.

their seas unsafe, attacked and plundered their vessels, taking the crews prisoners and selling them as slaves for cultivating the ground or compelling them to work in their prahus. They appear to have learned piracy from the Illanuns and Sulos and to have speedily rivalled their instructors in renown. The ease with which in this manner they provided for their necessities and the despotic government of their princes and chiefs, are probably to be counted amongst the causes of the principal traits in their character, such as idleness and laziness, cowardice, falsehood in conversation, and treachery.

Besides this, they are jealous, vindictive, cruel, haughty, addicted to gambling and betting, uncleanly in their clothing and houses, spendthrift and utterly indifferent regarding the daily occurrences of life. The chiefs always maintain the greatest gravity as a mark of propriety, and appear as if nothing could excite their wonder. One seldom sees in a meeting of friends the slightest mark of satisfaction on the countenance or a smile on their lips, or hears them engaged in cheerful conversation. This indifference shows itself in their attention to their affairs. They live from one day to the other, without giving themselves the slightest concern about the future. Commerce instead of being in any way encouraged is driven away by the most despotic extortions. Taxes are imposed in the most arbitrary manner and exacted with great cruelty. No man is certain of his property or of the fruits of his labour. Princes and chiefs can appropriate the same at their pleasure. It is evident that in such a state of things all energy must be repressed and a continual state of fear and suspicion prevail. On places under the Dutch or English government, where their rights are recognised and they can hold their property in peace, a different state of things prevails with them.

Their intellectual capacity is good although little cultivated. They have generally good memories, especially as regards places, a consequence of their seafaring lives. The Malays, in my opinion, must be ranked below the Javanese in the general acceptance, as regards morality, disposition and habits, as well as intellect and ingenuity. The only good qualities which I can attribute to them, are a great capacity of endurance and the strict

performance of their religious duties. The Malays are first-rate seamen. The fearlessness and dexterity with which they manage their small sampans has often excited my admiration. We may often see whole families, men, women and children, passing from one island to the other in these small boats, which we should think the slightest accident would upset. This, however, seldom happens and when it does, they all betake themselves to swimming, right the sampan, re-embark in it and pursue their voyage.

There are two distinct classes to be distinguished amongst the Malays, the *orang darat* and the *orang laut* otherwise called *tambus* or *orang rayat*. The first named reside on land, are traders, agriculturists, handicraftsmen and the like. The second class have their residence in prahus, in which they constantly live with their families. These prahus are to be found in numbers in the river at Lingga, as well as at Bintang and other islands. They are less civilized than the *orang darat*, probably because most of them have not yet embraced islamism. They are mostly fishermen and were formerly pirates. These people are all feudal vassals of the nobles. There are some peculiarities in their language as well as manner of speaking.

Here and there amongst the large islands are still found some completely wild or uncivilized races. These people live in the forests and in huts of branches and leaves on the trees. They are entirely naked and are extremely timid. They however carry on a little traffic with the Malays and barter the natural productions of the forests, such as dammar, lakha, garu, getah, &c., for knives, parangs, &c. It appears that these people are not very numerous. They are probably descended from the aboriginal inhabitants of these places. Formerly these races lived in Johor, but the viceroy of Rhio has allowed them to settle at Bulan Strait, where they are under a chief called *batin*, named by the viceroy. Their language is quite different from the Malay. If a stranger is not accompanied by the *batin* they will not approach him, but shoot at him with poisoned arrows from their blow-pipes.

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ERRATA IN CHAP. V., SEC. II. "ENQUIRIES INTO THE ETHNIC HISTORY  
AND RELATIONS OF THE DRAVIRIAN FORMATION, &c., &c."

IN THE PRESENT NO.

- Page 7 line 12 from bottom, after "Pl," delete the comma and *insert* a full stop  
 " 9 last line after "only" *insert* a comma  
 " 10 line 18 from top, for "dialectic" *read* dialectic  
 " 11 line 18 from top, after "adi,-" delete - and *insert* -,  
 " 15 line 14 from top, betwixt "nyu" and "mu" *insert* -  
 " 15 line 17 from top, betwixt "mu" and "sometimes" *insert* a comma  
 " 15 6th line of the first note from top, for "present" *read* parent  
 " 16 line 13 from top, betwixt "we" and "Tamil" delete . *insert* ,  
 " 16 line 6 from bottom, betwixt "bu" and "am" delete - *insert* ,  
 " 19 line 15 from top, betwixt "Libyan" and "form" delete ,  
 " line 18 from top, betwixt "the" and "affinity" *insert* pronominal  
 " 20 line 11 from top, after "ing" *insert* ,  
 " 20 line 17 from top, after "eng" *insert* ,  
 " 20 line 21 from top, after "plural" *insert* ,  
 " 20 line 22 from top, after "possessive" *insert* ,  
 " 20 line 9 from top of the note, betwixt "incorporation" and "a" *insert* of  
 " 20 line 3 from bottom of the note, betwixt "Kinawari" and "Tibetan" *insert* ,  
 " 21 line 17 from bottom, after "i" *insert* , ni  
 " 22 last line, after languages delete (and *insert* ,  
 " 22 last line of the first note. *for* vol. ii. *read* vol. i.  
 " 23 line 12 from bottom, betwixt "the" and "Indo-European" *insert* Draviro-  
 Australian and  
 " 24 line 12 from bottom, after "on" *insert* ,  
 " 25 line 4 from top, after "Zimbrian" *insert* Draviro-  
 " 25 line 9 from bottom, *for* "person" *read* pronoun  
 " 25 line 3 from bottom, after "centre" *insert* philologically  
 " 30 line 15 from top, after "American" delete and African.  
 " 36 line 2 from bottom, delete nya-n  
 " 36 la-t line, *for* "nga-n" *read* nga-n  
 " 37 line 9 from top, *for* "obl." *read* abl.  
 " 37 line 11 from top, *for* "Kam." *read* Karn.  
 " 38 line 17 from bottom, before "double" *insert* a, and after "Chinese"  
 delete , and *insert* .  
 " 38 line 7 from bottom, before "pass." *insert* in  
 " 39 line 4 from bottom, *for* "Kari" *read* Khari  
 " 40 line 3 from top, *for* "Toung-lhoo" *read* Toung-lhu.

The following additional notes were received after the paper had been printed off:—

1st Note. To come in on p. 29 on the 2nd line from top, after the word "African &c."

\* In other Indo-European languages the labial is demonstrative &c. The Welsh 3rd pronoun *masc.* is *ev*, *vo*, *eve*, *ve*, *ivo*, *e*, *o*, the *fem.* being the common sibilant or aspirate 3rd pronoun *hi*, *si*, *i* &c. This is a remarkable coincidence with Semitico-Libyan. The coincidence between the Welsh and the Egyptian 3rd pers. *masc.* has been remarked by Dr Charles Meyer. Sanskrit has a demonstrative base *ma* (Bopp § 368). Zend has *ava*, Slavonic *ovo*, "this." The Welsh labial 3rd pronoun is more likely to be connected immediately with the Indo-European labial demonstrative and postfix than with the Semitico-Libyan postfix. It is probably a remnant of the period when the labial as well as the sibilant and dental might be used as a 3rd pronoun and it is quite possible that the former was then masculine and the latter feminine. That the labial had become neuter as a definitive postfix, and that the dental had displaced it as a 3rd pronoun and lost its sexual function, would not be anomalous. The Semitico-Libyan family presents similar phenomena: In some languages the sexual functions of the two definitives have been lost. In others the feminine has displaced the masculine. If such changes took place in Indo-European they must

have preceded the separation of all the branches save the Celtic, which appears to have carried westward the use of both pronouns. The Semitico-Libyan system renders it probable that the sibilant or dental was originally absolute or common.

2nd Note. To come in on p. 29 line 8 from top, after the word "Anam &c."

\* In the Gond wur "he," bur "who," the plural *r* of Dravirian occurs in the singular, the pl. taking *-g*, *-k* (wur-*g*, bur-*k*). This is probably one of the dialectic confusions of form common in the northern dialects and it may have had its origin in the southern use of the plurals as honorific forms of the singular. It may, however, have been the fem. form of the singular with *-r* for *-l*. In Australian, Yeniseian, Scythic, N. E. Asian and Semitico-Libyan the labial definitive so frequently occurs with a final liquid in the singular that it is necessary to recognize the existence of this form as a very archaic one (bal, bar, wal, val, mal, man, bari, buli &c. &c.) There are even strong reasons for holding that this particle and the liquid *ar*, *ra*, *ri*, *la* &c were primarily identical and that the dual and plural function of the latter was secondary, and acquired from the use of the labial definitive in its various full and contracted forms (e. g. bar, bari, ba, ar, ri, li, ni &c.) as the numeral "two."



THE  
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THE INDIAN ARCHIPELAGO  
AND  
EASTERN ASIA.

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NOTES ON THE CHINESE IN THE STRAITS.

THE origin of the emigration and formation of Chinese colonies in the Archipelago, is of comparatively recent date. There can be little doubt that Chinese traders have been in the habit of visiting the several ports for many centuries; but it does not appear that they formed settlements of their own till after the arrival of Europeans. The emigration to Manila and Java, apparently, did not commence till after both islands had been occupied by Europeans. The Dutch had made considerable progress in forming a settlement at Formosa before the Chinese appeared to pay any attention to that island; though within 20 leagues of their eastern shores. When, however, the move outwards of the Chinese commenced it went on with singular energy, as we find that immediately after Formosa became known as a valuable outlet near their coasts, the Dutch were driven out by the pirate Coxinga (properly Quee Seng Kong), and in a few years the whole island was thickly peopled by Chinese. From

being uninhabited, it became an integral portion of the empire, with the same superabundant numbers as in China itself. Manila and Java received vast accessions of population, after the way was pointed out by the Europeans; but their increase has been checked by the timid policy of the Dutch and Spaniards. The tyrannical and depressing systems of both those governments were unsuited to the genius of the Chinese, who were often driven to a resistance which was always taken advantage of. The emigration to Borneo under native governments appears to have commenced earlier, and, at first, to have been very extensive. The great value of the productions of that island had early attracted the Chinese to its shores, and under the mild government of the original native sovereigns, the Chinese increased in a remarkable degree. This appears to have been the only exception to the rule that emigration on a large scale did not commence till after the 16th century. The Chinese do not appear at any period to have settled at the spice islands, probably not being suited to their climate they did not place such a value on the nutmeg and clove as did the northern European nations.

Under a Malayan government in Borneo, and under their own government in Formosa, the Chinese increased in numbers, but in Manila and Java they have been kept down so sternly that, till this day, they do not appear to be more numerous than they were 150 years ago, notwithstanding the yearly additions to their numbers: and, though largely intermixing with the females of whatever countries they visit, their descendants do not appear to be so numerous as we might expect. The principle, common to all the great nations of South Eastern Asia, of preventing female emigration, has hitherto interfered, except in the case of Formosa, to prevent the formation of great Chinese settlements in any of these islands. It can scarcely be doubted that, if that restriction had been removed, and the settlement of Chinese been unmolested, and guided by recognized authority, the whole Archipelago would long ere this have been inhabited, and the almost incredible resources of the several islands have been developed, by a full and enterprising population, instead of lying stagnant under the domineering influence of a foreign nation, whose subjects cannot themselves work, and whose timid policy, fearful of losing what

they cannot rightly retain, has prevented the ingress of a race in every way fitted for the work of colonizing these places. The tendency to emigrate from China is remarkably shewn by late facts connected with California and Australia, where immense numbers of these people have proceeded. Whatever may be the advantages of Chinese immigration to the islands of this Archipelago, and to all our tropical colonies, where climate prevents our own countrymen from efficiently tilling the ground, it may be doubted whether any advantage can arise to such settlements as Australia and California, from a large influx of a peculiar race like the Chinese. Under a democratic form of government, such as that of the United States and, socially speaking, as that of our Australian colonies, no class of the population ought to be allowed to grow up with separate interests, or on a distinct footing from the rest of the inhabitants.\* The only way to prevent the Chinese from forming separate interests, either as masters or servants of the colonies, will be the absorption of the race with the Anglo Saxon; an idea abhorrent to the feelings of the most liberal cosmopolite. After the first glow of the gold finding mania is passed, we may expect a cessation of emigration from China to the Anglo Saxon colonies in Australia and California. The enterprising spirit, long in operation, and recently stimulated by gold prospects, will seek new channels. At first, from the extreme want of labour in Australia, Chinese immigrants were encouraged, but it may be expected they will soon find their condition unpleasant, under the discouragement of a race jealous of intermixture, and anxious to preserve themselves and their country from the taint of inferior blood. The natural field for Chinese emigration is found in the islands of the Indian Archipelago, where, with a climate suited to their bodily constitution, and with a soil capable of producing the most valuable and varied articles of intertropical growth, and requiring only hands to work, they will find every requisite for the formation of a great colonial empire capable of vieing with the proudest European establishments. When the race of competition with

\* The helotage of Africans can be excluded here. Slavery is universally considered as an evil, its defenders only insist on the necessity of the case for its continuance. It is not considered by any class as an institution advantageous to the general interests of the Republic.

the rest of mankind has commenced, and when the Chinese become in reality part of the great human family, we may expect to see emigrants of the middle and higher classes, and not as now, of the very lowest, entering the field; and, assisted by their greater applicability to the climate, it is not difficult to conceive the result, in course of time, of the unequal competition which will then arise between the Chinese and the native islanders on the one hand and the Europeans on the other.

The degree of civilization attained by the Chinese places them far in advance of any of the other purely Asiatic races met with in these Settlements, while their physical superiority is obvious to the eye of the most casual observer. A peculiarity attending their emigration will sufficiently account for their not having taken up higher ground in these seas, where they have been content to remain subjects; while, from their superiority, we might have expected a desire to rule. After the consequences of the connexion of Europeans with the several nations in S. E. Asia had been shadowed out, it became the policy of the Chinese government to put a stop to all intercourse, either on their own land or abroad;—all traffic, except such as was absolutely necessary, was discouraged, and the weight of authority was exerted, in connexion with religious scruples, to prevent emigration. It was considered disgraceful, among a people remarkable for pious regard to ancient customs, to desert their ancestral halls and to depart from the resting places of their forefathers' remains. Among the middling and higher classes emigration was most effectually checked, but poverty in China, as elsewhere, breaks down all artificial rules, and among the myriads of almost destitute paupers in the eastern provinces, when suffering from the pangs of hunger, many were found willing to undergo any distant and imaginary evil as the price of present ease and plenty. Our immigrants, unfortunately, are all of the lowest classes, and under the disadvantages of their position, it must be a subject of wonder, to the candid mind, that they have asserted their superiority so fully and that they have not been found more obnoxious to good government. Landing, as they do, on our shores, naked, diseased and poverty stricken, we must be surprised at the wonderful capabilities of these countries, as well as at the aptness in taking advantage of their opportunities,

to find after a few months, the same people well clad, well fed, and in the enjoyment of the best health. From the large proportion of absolute paupers arriving in the junks, it has been asserted that the Mandarins in the shipping ports take advantage of the opportunity of the sailing of the emigrant vessels to force on board their diseased paupers and criminals, thus getting rid of a nuisance, and improvising a system of criminal transportation at the expence of other nations.

The emigrants to the Straits are all from the south eastern provinces, chiefly Canton and Fokien. Leaving China in December and January, the commencement of the north east monsoon, (their winter) they sail down the China Sea with strong fair winds, and in about 10 to 20 days arrive at Singapore. The last year's (1853) arrivals at Singapore were as follows :—

	By Junks.	By Square-rigged vessels
Amoy.....	550	3,456
Macao.....	1,185	169
Canton.....	994	127
Ching Lim.....	2,645	...
Suathow.....	1,021	..
Hylam.....	662	..
Other Ports.....	675	..
	<hr/>	<hr/>
Total by Junks	7,732	3,752
		<hr/>
		7,732
		<hr/>
	Grand Total	11,484

The numbers, according to the official returns, have latterly been on the increase, but whether this is owing to a real increase, or to a more careful enumeration, it is not easy to say. The probability is that the numbers have been underrated from the first rather than otherwise. The masters of the junks, not understanding the science of statistics, view any attempt at counting their passengers or bales of goods as a certain prelude to taxation, if not “*squeezing*”, and are anxious to pass themselves off at as low a figure as possible. The arrivals for the last 13 years are published as follows :—

Nos.	1840-41	41-42	42-43	43-44	44-45	45-46	46-47	47-48	48-49	49-50	50-51	51-52	52-53
	5003	6154	6301	..	10680	8646	9509	0048	9817	10028	8205	9685	11484

Previous to this they averaged for some years about 5,000. In addition to these, a number of square-rigged vessels yearly import Chinese into Pinang. The numbers thus brought must be added to the total, not having entered at Singapore, unlike the junks, which touch there first, and afterwards sail on to Malacca and Pinang. From Singapore the labourers are distributed over the countries between the Malayan Peninsula and Sumatra.

The mode of conducting the emigration business is as follows; and would appear to be deserving of attention, as perhaps capable of being introduced elsewhere. The passenger, (called "Sinkay") not having money to pay for his passage, enters into an agreement with the master of the junk, to bind himself apprentice to some one at the port of arrival for one year, without wages, only receiving food, clothing and a small sum for barber's expences, tobacco, and other little indispensable luxuries; the balance of consideration for the labour of the year is to be handed over to the master of the junk, as payment of the passage money. The Sinkays are kept on board the junks, as security for the passage money, till taken by an employer, who, in consideration of obtaining his services for a year at a low rate, pays part of a year's wages in advance, with which advance the Sinkay clears himself with the junk master. This is the principle of the operation, but as the business is conducted, not through each Sinkay, but directly, between the junk master and the intending employer, and as the amount for passage money varies with the demand for labour, it has a certain colouring of slave dealing which has prejudiced many against the system. The Sinkay is not bound to go with any person who chooses him. If he pays his passage money, as he agreed to do when starting, at the same rate as the others, he is quite free to go wherever he pleases. If government had any interest or object in adding to the population of these Settlements, a regulation affording protection to the parties to these agreements would have the effect of attracting large numbers of emigrants yearly. As it is, at present when the junks arrive the masters are not allowed to detain the men on board. If it is represented on shore that any passengers are detained, a police force is sent off at once to free them from restraint. It is not, as it certainly should be, in all fairness, explained

to the Chinese that, although the junk master cannot detain their persons for the debt contracted by them, he has a good action against each, by agreement, for the amount of passage money, and that if he prosecute them by law, they will most likely be cast in heavy costs. If this were told them and if the law were capable of being put in force easily few would leave the junk. But the police go on board, and content themselves with informing the Sinkays that they are free to go; for which gift of free passage, as they consider it, the Sinkays feel greatly obliged. The junk master, well knowing the folly of attempting any legal measures, where the people would be distributed over the Archipelago long before he could get a hearing, accepts the loss quietly, and determines to be more cautious in bringing emigrants to the Straits again. Thus is closed up a means of improving their condition to countless thousands who would otherwise be willing to bind themselves on such reasonable terms.

In addition to the large number of Chinese thus yearly arriving, there are now considerable numbers of country-born Chinese in the three settlements, particularly at Malacca. Having been born and educated for several generations under European governments, this class of men, free from all prejudice and alien feeling, enjoy great advantages in the race of competition. Devoting themselves almost exclusively to trade, they have hitherto had a monopoly against their less fortunate countrymen from China, who, as before said, are of an inferior class, and not qualified either by the possession of capital or knowledge of business to compete with men born among traders, in all the advantages of better education and previous establishment. The Malacca born Chinese have a virtual monopoly at Singapore, which has itself not yet been long enough established to have produced a generation of adult Chinese.

In the 2nd volume of the *Journal of the Indian Archipelago* will be found a table shewing the occupations and numbers of the several tribes of Chinese in Singapore, drawn up by a Chinese trader. The estimate of the population is considerably too high, the nearest census taken, that of December 1849, shewing a total population of male Chinese amounting only to 24,790, and of all ages and both sexes the total was only 27,988, while in this

table the numbers of tradesmen &c. is given at 39,400. The table however is interesting as shewing the ideas of an intelligent Chinese and perhaps is a nearly correct comparative account of the different professions and callings.

*Estimate of numbers and occupations of Chinese resident in the Island of Singapore, in the Year 1848.*

NAMES OF PLACES.	Hokien.	Te Chu.	Malacca.	Macao.	Khe.	Hailam.
Shopkeepers and traders.....	3100	4700	900	350	600	100
Gambier & Pepper Planters. ....	..	10000	..	400	..	..
General Agriculturists.....	2000	2000	100	..	..	600
Sago Manufacturers.....	500	..	..	..	..	..
Boatmen .....	930	660	..	..	..	..
Porters.....	800	..	..	..	..	..
Fishermen.....	200	600	..	..	..	..
Lime Burners.....	100	..	..	250	..	..
Charcoal Ditto.....	..	140	..	..	..	..
Brickmakers.....	..	..	..	500	..	..
Bricklayers and Masons.....	100	..	..	..	..	..
Labourers of Ditto.....	700	100	..	500	..	..
Stone Cutters.....	..	150	..	..	..	..
House Carpenters.....	..	..	..	300	1000	..
Cabinet & Wooden-box makers. ....	..	..	..	1000	300	..
Wood Cutters and Sawyers....	..	..	..	1000	800	..
Ship and Boat builders.....	..	..	..	400	..	..
Blacksmiths.....	..	..	..	..	500	..
Goldsmiths .....	..	..	..	..	100	..
Bakers .....	..	..	..	200	..	..
Barbers .....	..	50	..	200	100	..
Tailors, and Shoemakers.....	..	..	..	400	400	..
House Servants.....	..	..	..	500	..	..
Watermen .....	250	..	..	..	..	..
Revenue Peons and preparers of Arrack and Opium .....	70	..	..	..	..	..
Miscellaneous .....	..	..	..	..	200	..
Unemployed .....	250	600	..	..	..	..
Grand Total	9000	19000	1000	6000	4000	700

In the government census, 23rd January 1850, the employments and numbers of Chinese inhabitants are given as under :—



Merchants and Clerks.....	98
Mechanics .....	2322
Agriculturists .....	8426
Labourers.....	8303
Servants..... ..	335
Miscellaneous.....	5306
Total	<u>24,790</u>

The position of the Chinese in native states at the present day is somewhat anomalous. It would appear that few Chinese settle permanently in any of the native states in this part of the Archipelago; they establish their families, and make a sort of head quarters at the nearest European Settlement; and from thence trade to the native states, making them a place of residence for periods, longer or shorter, but rarely making them their permanent abode. In the tin countries an exception appears, but there they are in such numbers as to be able to protect themselves, and, in consequence, the native chiefs are careful of interfering, and are content with the exaction of their proper proportion of tax on production. In cases where the Chinese have not been able to protect themselves against the Malay chiefs, the latter invariably encroach, and, if not checked, never cease extorting and exacting till they compel the Chinese to leave the country. Owing to the want of strong governments, any chief powerful enough to exercise an influence is permitted to do so without attempt at check on the part of the sovereign, (if there is one) who is paralysed by the neighbourhood of Europeans. With the exception of the native tin districts in Junk-Ceylon, Salangor and Sungi Ujong, Chinese are now only found at the ports and harbours of the native states, exclusively occupied in commercial pursuits, and chiefly as temporary residents. The immense numbers on Borneo appear formerly to have been strong enough for self-government; and having established themselves before the decadence of the native powers, they were protected in the commencement, and afterwards were strong enough to protect themselves, resisting the aggressions of the petty chiefs who sprung up on the ruins of the old Malayan sovereignties. Their long continued freedom from interference, made them especially impatient of the restraint on their movements

which followed on the Dutch assuming the rule of the several districts in which they were settled.

It is difficult to form any adequate idea of the numbers of Chinese scattered over the Archipelago and with our knowledge of the numbers which have, for at least two centuries, been crowding to the various islands, we cannot conceive any feasible cause for the fact that hitherto they have not had a sensible effect on the population. Unaccompanied by females of their own race they always, as soon as able to afford the expence, unite themselves to the native women of the countries they visit and with them give birth to children. In Malacca we find that all classes of the population have been altered from their primitive type. The Chinese physique is kept pure only by the most solicitous care, by constant intermarriages with men fresh from China, and by carefully excluding all females with less than the attainable purity of blood; that is, the first generation had half Malay blood but ever since the first stock of females was procured they keep within that line. None but the agriculturists and poorer classes intermarry with the Malays. In spite of all this care the Chinese of Malacca now, though not distinguishable to strangers, have features foreign to their ancestors. The face is fuller and more rounded; the cheek bones and features are not so marked and prominent; and, lastly, the triangular eye is decidedly more rounded. These effects, in a highly artificial state of society, where every effort is made to retain purity, must have a much more extended operation in rude agricultural communities and the enquiry naturally arises whether the Chinese in the islands of Borneo, Sumatra, Java and in the Malayan peninsula, have already exercised a decided influence on the physique of the Malay-inhabitants, and if so what have been and are likely to be the moral consequences of the change?

According to the last census the numbers of Chinese in these Settlements were:—

In Singapore.....	27,988
„ Malacca .....	10,608
„ Pinang.....	15,457
„ Province Wellesley....	8,731
	<hr/> 62,784

Great numbers are also to be found at the tin mines at Junk Ceylon, Salangor, Sungi Ujong and Banka, but no approximation beyond the merest guess can be obtained of their numbers, except at Banka, where they are said to exceed 10,000, all engaged in tin mining. The intellect of the Straits Chinese, as compared with the ordinary home Chinese, must be considered as of an inferior order. This may be owing perhaps to the want of education of those born among us, and to the original inferior condition of the immigrants from China, their fathers.

The Chinese are not deficient in self assertion in their own country, as the history of our intercourse with them will abundantly prove. The head men of the junks and the few chance visitors of higher order appear to be very different from the cringing submission and want of personal independence which characterize the very highest Chinese to be met with in the Straits. Like the miserable Hindoo, ever ready to fall down and worship wealth and power, little can be expected from these people, if left to their own devices, in the way of improving their status among other classes. Content with the wealth which their cunning and habits of business provide, they look alone to material wants, leaving the moral man uncared for, and in consequence the Chinese, who ought to occupy a high and distinct position among our native classes, are content to remain unmarked. The same want of truth, absence of what we call honor, or, in other words, a refined perception of right and wrong, observed in the native of Hindostan, is found in the Chinese, surely not from want of capacity for improvement, but rather from absence of any means of education. One of the least talked of but in reality most valuable of Sir Stamford Raffles' projects, was the provision of adequate means for a high degree of education for the natives, and particularly the Chinese. He must have been struck with the anomaly of seeing a class of men occupying a high position in commercial circles in his new colony, and capable of most materially influencing by their talents for business, the future prospects of the Settlement, placed beyond the pale of European intercourse by moral inferiority, and he easily foresaw that education was the only cure for such an evil. Immediate attention ought doubtless to be directed to the provision of general education for all, and a higher stand-

ard for the wealthier classes, who, while they will not at present combat their selfishness so far as to send their children to Calcutta or Sydney, would readily avail themselves of good education if procurable on the spot.

One marked feature of the want of education, is the tendency of the children of wealthy natives to dissipate the fortunes left by their painstaking parents. The proximate reason of this result is the backwardness of those parents to do violence to their feelings, by bringing up their children with propriety and without a senseless over indulgence. This feature in native manners is especially hurtful, as it prevents the retention of those fortunes, the possession of which enables men to devote themselves from their youth to moral and mind-elevating pursuits, in opposition to the baser and more degrading tendencies of an exclusive attention to the accumulation of wealth. One or two generations of educated and wealthy Chinese would make a wonderful change in the position of these colonies, and as soon as they can be induced to give up an exclusive attention to their own barbarous literature, in which youth has to wade through an almost impossible character to learn absolutely nothing, and adopt the modern systems of western Europe, we may expect to see the commencement of the change.

If the present revival of the old idea of obtaining Chinese labourers in the English West India Colonies ever be carried out, there will be a fair opportunity of observing the effect of European civilization on that people. In the enjoyment of a perfect personal independence, an exact and efficient administration of justice brought home to each man's door, every facility and encouragement to educate himself and his children, he will there have advantages which he has not yet met with in the Settlements of Europeans in Asia.

The Chinese, then, as well the Malacca born, as the native Chinese, occupy a position in the social scale in the Straits decidedly inferior to the Europeans, but superior to all other classes of the native population. They follow the occupations of tillers of the soil and the handicrafts of towns, they are our only shoemakers and carpenters, bakers, blacksmiths &c., while in other trades, as tailors, barbers, bricklayers, fishermen, boatmen, porters, &c., Klings and Malays compete; requiring smaller wages these

classes are able to compete in price, but the Chinese are generally preferred by Europeans on account of their greater steadiness and perseverance. As house servants with European families the Chinese are found to be particularly valuable. In a country where the native Malay is sunk in indolence and apathy, and where the servants from India, in addition to the disabilities attending their caste systems, are not found capable of performing the duties of an European household, unless employed in large numbers, the services of the Chinese are valuable. Accustomed from early youth to unremitting toil, and unfettered by prejudice, a Chinese servant, if taken young and properly trained, is the nearest approach to servants at home. One objection, and it is a most serious one, is however urged against their employment. It is asserted that they are not trustworthy, that the longest service, marked by uniform kindness and consideration, is not proof against temptation, and the evils of secret societies, whose influence is universal. In consequence, instances are known of the vilest treason and treachery; however this may be, it is certain that the advantages of their employment, under good management, more than counterbalance any evils to be anticipated from their treachery, as is seen by the general employment of Chinese house servants in Singapore and Malacca. In the Chinese we have the only example of what must to all English colonists be a perfect myth, the "servant of all work"; many of the lower classes of Europeans are served, and well served, by a single Chinese. The antecedents of Pinang with its long Indian connexion, do not encourage the employment of Chinese house servants in that island; hitherto Indian and Malay servants have been alone employed.

Another sphere of usefulness in which the Chinese are exclusively employed is the collection of the excise revenues. The Chinese have always been the farmers of the revenue. They appear to be the only class of our native population who are familiar with the principles of regular collections, and who understand any system of fiscal regulations. The articles on the consumption of which the chief portion of the revenue is raised, are also peculiarly within the use of the Chinese, and this doubtless gives them a degree of speciality in dealing with the revenue which completely excludes competition from any other class of people.

Without their assistance, Government would find considerable difficulty in collecting the excise revenue.

The details of the great European trade of these settlements are managed almost exclusively by Chinese. The character and general habits of an European gentleman quite preclude him from dealing directly with the native traders who visits our ports, and who bring the produce of their several countries to exchange with articles of different climates found collected there. These traders—Malays, Bugghese, Chinese, Siamese, Cochin Chinese, Burmese &c., have their own modes of conducting business, founded on a status of civilization very far below European models, and which Europeans cannot condescend to adopt. Here the Chinese step in as a middle class and conduct the business, apparently on their own account, but in reality as a mere go between. But little superior in moral perception, the Chinese puts himself on a level with the native traders, takes them to his shop, supplies them with sirih and other luxuries of a more questionable shape, and joins with them in their indulgences. Surrounding them with his numerous retainers, and studious to make their stay agreeable, he listens calmly for hours to senseless twaddle, the tiresome inanity of an exhausted temper, and succeeds in dealing with the native on terms far inferior to what could have been obtained from the European merchants. If the native could only elevate himself sufficiently to meet the European to deal directly, without the interference of a third party, whose profits of course must be a weight on all transactions, he would find it greatly to his advantage.

The relative value of Chinese mental labour is exhibited by the fact that they outstrip and defy all competition from native classes in the money making modes of mental labour, while physically their obvious outward superiority is further borne out by the experience of persons employing them as labourers. The Government Surveyor at Singapore, a very competent authority, has furnished a table\* of the relative value of English and Chinese labour, from which the following facts are taken:—

Brick work....	English	100—to	Chinese	52
Earth work....	do	100—to	do	57
Sawing timber..	do	100—to	do	51

\* See Journ. Ind. Arch. vol. vi. p. 436-37.

These proportions are founded on the supposition of the Englishman working in England and the Chinaman at Singapore, so that an allowance is to be made in favor of the latter for his work being in a climate not his own. The difference however of the climate of Singapore and the South of China, from whence our Chinese immigrants come, is not so great as to require a large allowance.

With regard to the relative value of Chinese and other native agricultural labour it is difficult to form any correct estimate. All Chinese are averse to receiving monthly pay for their labour, they prefer to be interested in the work to be done by them, and, if that cannot be accomplished, they then endeavour to work by contract: from the difficulty of superintending their work Chinese coolies on monthly wages get little more than Klings. In calculating their work generally, as compared with Klings and Malays for field labour, it has been considered that a Chinese was worth 4 dollars, a Kling 3 dollars and a Malay 2 dollars a month.

The evident value of Chinese labour has long drawn the attention of the West India and Mauritius planters in the hope of obtaining a supply of emigrants from the overteeming population of China. In 1806 His Majesty's Ministers sent a commissioner to India and China for the purpose of endeavouring to obtain, with the aid of the East India Company, a supply of Chinese coolies for the Island of Trinidad. The question at that time was discussed in all its bearings. It was found that the Chinese could easily be induced to go to the West Indies, and would, in all probability, be a most valuable acquisition, but there was one difficulty which proved at that time insurmountable, viz the exclusive trading privileges of the East India Company. The Chinese of the lower orders, pressed by poverty, readily consent to leave for a time the burial places and halls of their ancestors, but it is essential that they should have a constant and easy means of return for themselves, and of sending, according to invariable custom, yearly remittances for the support of aged relatives at home. They also require supplies of articles not procurable beyond the Indian Archipelago. To keep up the necessary communication, and to afford the supplies required, was considered as likely to be injurious to the interest of the Company and the project was in conse-

quence abandoned. Of late years the plan has been revived, but the want of direct and constant communication between China and the West Indies is found to be a great bar, by inspiring the Chinese with fears and doubts as to the distance and the practicability of countries with which they have no direct communication. These difficulties do not exist as to certain portions of Western America, and on a late occasion, when inducement offered at California, large numbers at once flocked to the land of gold. There can be little doubt that the high rates of wages, and the suitable climate, of the West India Islands would attract vast numbers of Chinese labourers to their shores, and the perfect freedom and protection enjoyed throughout the English colonies, not only in the towns but in the most distant country districts, would afford such inducements to a free people as in a few years materially to alter the present under peopled and depressed condition of those islands. The unfortunate result of many of the late Chinese emigrant speculations must however tend to check any further intercourse for the present. Hundreds of miserable creatures were crimped and kidnapped, and fraudulently sent on board European vessels ostensibly to sail to the Straits of Malacca, but when they got to sea they found their destination was America. Unprovided with suitable provisions, unaccompanied by any one capable of acting as an interpreter between them and their jailors, and subjected to illtreatment of all kinds, it is not to be wondered that the Chinese rebelled and following their natural instincts of freedom took possession of the ships. Had they done less than this, as a free people their services could not have been an acquisition in any land of liberty. It is a great mistake to suppose that the Chinese will continue to submit to injustice. Obedient and docile to a remarkable degree when treated with justice, no people of these countries shew a more determined opposition to any attempt at personal coercion. The treatment likely to be met with in the slave sugar growing colonies will debar them from going, and, if in the country, will prevent them from working. No class of Chinese, as far as we are acquainted with the race, will submit to slavery; unlike the natives of Africa, who become accustomed to the yoke and make no efforts to break their bonds, the Chinese will only work in slavery under positive force, and will avail themselves of the first opportunity to overcome that force.



MEMORANDUM OF A JOURNEY TO THE SUMMIT OF GUNONG  
BENKO, OR THE SUGAR LOAF MOUNTAIN, IN THE  
INTERIOR OF BENCOOLEN.

THIS mountain, which stands detached from the regular range of hills, forms by its peculiar and remarkable shape, an excellent landmark on this part of the coast. It lies about 18 miles N. E. of Bencoolen, but its exact position and distance had never been correctly ascertained. Two attempts had been made by Europeans to ascend the mountain but without success, and a general impression prevailed that it was utterly impracticable to gain the summit. Remarkable mountains of this description are generally believed by the natives to be the residence of spirits, and their summits are considered as Kramats or places of peculiar sanctity. A kramat of this nature was said to exist on the top of the Sugar Loaf, and it was reported that the natives sometimes adventured to visit it from motives of superstition. It was therefore resolved to make another trial, in the expectation that it might afford the means of correcting and extending the observations already commenced on the coast with a view to a more accurate survey of this part of the country.

A party of gentlemen accordingly proceeded from Bencoolen on the 10th of June, 1821, for the purpose of effecting this object. They crossed the Bencoolen river a little above Tanjung Agung, and proceeding through the Lumba Selapan district halted the first night at Lubu Pooar, a small Rejang village on the banks of a stream which falls into the Sungey Lamow. Thus far the journey was accomplished on horseback, but it was found impracticable to carry the horses any farther, and the party proceeded on foot to Punjong, a respectable village situated on the banks of the Simpang-ayer, and the residence of the Pasirah of the tribe of Marigi, the chief of the four into which the Rejangs are divided. The others are called Bermani, Saloopu and Joru Kallang. On the third day they reached Rejak Bessi, the last village in the direction of the mountain, where they rested for the night. It is situated on the Ayer Kiti, a stream which falls into the Simpang-ayer below Punjong. The journey from Lubu Pooar to this, might

with ease have been accomplished in one day instead of two, had the weather permitted.

The mountain was now to be attempted, and in order to ensure success, it was arranged to pitch a small tent in the forest in case the ascent could not be accomplished in one day. From Rejak Bessi they proceeded over hilly ground gradually rising for about five miles, when they found their progress impeded by the increasing steepness of the ascent, and then halted under an overhanging rock, where the tent was pitched as it was impossible to carry it any further even if space could have been found to erect it on. The course from Rejak Bessi was through deep forests which precluded them from seeing the mountain. The last view they had of it was at Rejak Bessi, which it appeared to overhang, and whence they were able to form some idea of the difficulties they were likely to encounter from the steepness of the ascent, and the precipitousness of the declivities. Soon after quitting Rejak Bessi they crossed a small river, on a temporary bamboo bridge thrown across a deep chasm between two rocks, which confined the stream within a narrow channel after being precipitated over a fall of considerable height. A fine view of this fall was commanded from the bridge, which was itself suspended about 100 feet above the stream, and the whole formed, with the surrounding forests, a beautiful and romantic scene. About 10 o'clock they commenced the ascent of the cone along the rocky bed of a mountain torrent, until they arrived in front of a perpendicular face of bare rock stretching completely across the ravine which had hitherto afforded a passage, and seeming to bar all further progress. This difficulty was surmounted by placing two of the longest bamboos against the rock underneath where the bare root of a tree projected from above; by the aid of these held fast at the bottom, and afterwards secured by a rattan at the top, they succeeded in clambering up to the tree which overhung the precipice. The next acclivity terminated at the head of another ravine, where their progress was again checked by a jutting rock rendered moist by the trickling of a small spring of water from among its crevices. Here the guides declared that further ascent was impracticable, and that from thence the party might return as soon as they pleased. The fact is they were

extremely averse to their proceeding, fearing the vengeance of the evil spirits if they conducted strangers to the summit; they were therefore advising to return at every difficulty, and the ascent was ultimately accomplished without their aid, or rather in spite of them. The appearances around were calculated to confirm this assertion, but before determining to return they examined the extent of the precipice, and crossing the ravine, perceived that the opposite side, though almost perpendicular, had a thin coating of soil and moss with numerous roots of trees half laid bare, by laying hold of which with the hands and placing the toes in the niches, they at length reached the ridge which formed the right hand shoulder of the hill. Along this a path was found, sometimes along the base, sometimes over the face of a succession of bare masses of rock, which it was necessary to clamber over by the aid of such twigs and roots as occasionally fastened themselves in their fissures. The last of these precipices was perhaps the most dizzy and dangerous, as it was necessary to make a step or two on a narrow ledge on the face of a cliff of such height that the eye could not discern the bottom, and thence catch at a dry stump barely within reach, by swinging from which it was possible with a considerable effort to clear the rock. The denseness of the moss and the stunted appearance of the trees now indicated their approach towards the top, and at length about two o'clock they found themselves on the summit. This was a bare spot of not more than four or five yards in breadth with a precipice on each side partly concealed by brushwood. Of those who set out together from the foot of the hill a few only reached this point, by far the majority giving up in despair at different parts of the ascent, but the labour of those who persevered was amply recompensed by the view which opened from the summit. The line of the coast from Laye on the north to a considerable distance beyond Buffalo point on the south was distinctly marked; the vessels in the bason of Rat Island were distinguishable with the aid of a glass, and the white ramparts of Fort Marlbro' were easily discerned. To the south, they looked down on the hills of Bukit Kandeas or the Lion's Rump, and Bukit Kabut (the hill of mist) which formed a straight line with the Sugar Loaf. Inland the view was obscured by a cloud which was evidently directing

its course towards the hill, and it was necessary therefore to take the desired observations and bearings with all possible dispatch. This was done with a small compass, none of the larger instruments having been got up. The character of the vegetation was decidedly alpine, the rocks and trunks of the trees being covered with dense moss, and many of the shrubs belonging to genera of higher latitudes such as *Vaccinium*, *Rhododendron*, &c. There is also found here a shrub which the natives consider a substitute for tea, remarkable by its thick glossy leaves; it will form a new genus in the family of the *Myrtaceæ*. Having finished their observations, they made haste to descend as the cloud was now rapidly approaching the hill and threatened a deluge of rain. They found the descent fully as difficult as the ascent had been, but it was occasionally facilitated by fastening a long rattan to a tree above, and then sliding along it down the steepest places. It was necessary however to be cautious not to slide with too much velocity in order to be able to keep a footing when the rattan slipped from the hand. When they had got about half way down, the clouds which had now enveloped the hill burst in a flood of rain, and rendered the footing still more insecure. The steepest parts however were then past, and the trees for a short while afforded some protection, but by the time they reached the lower ravines, the water began to swell, and the latter part of the descent was in the very bed of the torrent. They arrived at the tent about an hour before sunset, and found the spot completely flooded; the rain had in no degree abated, and it was impossible to find shelter for the whole party of natives, &c. which was very numerous; it was therefore determined to make a push forward to Rejak Bessi, rather than pass the night in so uncomfortable a situation. A sharp walk brought them to the village soon after dark, and a good night's rest repaired the fatigues of the day. The next day was spent at the same place both for the purpose of resting the people, and of bringing up the tent which had been left in the forest. On the 16th they travelled to PUN-jong, and the following day they commenced their return by another route, striking across the country in the direction of Bukit Kandeas to the Bencoolén river. Sampans had been previously ordered to be in readiness at Tanjong Sanej, and they arrived

there about 11 o'clock, having in the latter part of the journey forded the main stream of the Bencoolen river no less than eleven times. About twelve they embarked on the sampans, and placed the baggage and some of the followers on bamboo rafts; the first part of the course was a constant succession of rapids, in shooting down which some management was necessary to avoid being upset upon the trunks of trees and other obstacles that lay in the way. Twice by being driven against these, the boat was filled with water and with difficulty saved from being swamped. Below the junction of the Rindowati, the depth of the river increased and the current became more regular; and at length they landed near Bencoolen about nine at night, having thus accomplished, aided by the rapidity of the stream, in one day, what would have occupied several in ascending.

Gunong Benko is not estimated to exceed 3,000 feet in height, but its shape, and its standing boldly out from the general range of hills render it the most remarkable visible from Bencoolen. It is almost entirely composed of masses of basalt or trap, which is the most prevalent rock along this part of Sumatra. The whole of the country traversed on this occasion is exceedingly broken and irregular and but thinly inhabited. In the neighbourhood of the hill it is a complete forest and very wild, presenting an infinite number of romantic and beautiful views. The soil near the rivers is remarkably rich, and that of the forest tracts is little inferior, particularly in the bamboo groves, which indeed are generally found to prevail on the finest lands. The greater part of the rice is cultivated in ladangs, but there are a few sawahs. At Tello Anou is a small nutmeg plantation where the trees have never been manured, yet seem as thriving as any about town. The forests abound with noble timber trees; few animals were seen; of monkeys the Kra (*S. fascicularis*) and Chingkau (*S. cristata*) were the most common, and the land cry of the Siamang (*S. syndactyla*) was frequently heard, though they did not come in sight. It is very singular to observe the young of the Chingkau and Simpai (*S. melalophos*) embracing their mothers, that of the former being fawn colored while the adult is nearly black, and the latter having the young black while the mother is fawn colored, appearing exactly as if they had exchanged young ones.

At about half the height of the mountain the temperature of a small shallow spring was tried where it oozed from a cleft in a rock and found to be 68° Fah.—The temperature might however have been lowered by evaporation, therefore it can scarcely be assumed as a true mean temperature, or employed in calculating the height.—It may however be remarked that the mean temperatures given by Mr Leslie for the level of the sea in the different latitudes will certainly not apply to the low latitudes in the eastern islands: 83° which is given as the mean temperature in latitude 3, is far too high for Bencoolen, where the range of the thermometer throughout the year is usually from 74 to 85, rarely falling below 70 or rising above 87 or 8.

The people who inhabit the interior are Rejangs, and speak a different language from the Malays; they extend northward as far as Laye. From the Sillebar river southward, the Serawi tribe prevails, and the space between that river and the Bencoolen is occupied by the tribe of Dua-blas. Similar customs with slight shades of difference in each prevail among all these tribes. At every village where the party staid for the night, the gadises or virgins paid a visit of ceremony in the evening, making a present of betel or siri, and receiving some trifling articles, in return. This custom is general, and it is necessary to be provided with a sufficiency of fans, looking glasses, or such like articles in consequence, as the number of the young ladies is often very considerable. Sometimes an entertainment is given in honor of the visitors, and then all the beauty of the surrounding villages is also called in.

These entertainments, which take place also on occasions of marriages, &c. are not unamusing and to a European have the additional interest of novelty and originality. They are given in the Balei or public hall, a large building generally in the middle of the village, appropriated to such purposes and to the accommodation of strangers, &c. When European visitors are present, the ceremonial is generally as follows; the gentlemen being seated near the upper end of the room, the gadises drest out in their best attire, make their appearance about nine o'clock, and seat themselves on the floor previously spread with mats, in a semicircle with their attendant matrons behind them; each brings her siri box of

various material and elegance according to the rank or wealth of the parties. The chief of the village or one of the elders then makes a harangue in the name of the ladies, welcoming the strangers to their village, and concluding with the presentation of the betel. An appropriate answer is then to be made, and after taking out the siri leaves a small present is put into each box, proportioned in some degree to the rank of the parties; this however may be put off at pleasure till the conclusion. The amusements of the evening then commence, which consist on the part of the young people of dancing and singing; and of the old, in smoking opium in a circle apart by themselves. The musical instruments are commonly kalintangs,, which are a species of harmonicon formed of a series of small gongs arranged on a frame. A space is cleared on one side for the dance which is performed by five or six of the young gadises; the step is slow and sailing; the salindang or scarf is adjusted in a particular manner over the shoulders so that the ends may be taken in the hand, and the motions of the arms and management of the flowing scarf are not the least graceful part of the performance.

The singing of pantuns in alternate contest is an amusement which seems to be peculiar to the Sumatrans and of which they are very fond. It may either be formally commenced by two parties who seat themselves opposite to each other after having danced together, or it may be begun by one of the ladies from the place where she happens to sit. She begins a series of pantuns in a kind of recitative or irregular song; a bujang or young man answers her in the same manner and the contest is kept up indefinitely or until one of the parties is unable to give the proper answer. The girls and young men relieve each other occasionally as one or other happens to get tired.

The Malay pantuns strictly so called are quatrains, of which the first two lines contain a figure or image, and the latter give its point or moral. Sometimes the figure or comparison is accurately suited to the subject, and then the application may be omitted in recitation, the more to try the ingenuity of the respondent; sometimes the whole is couched under one or more figures; while in many the beginning seems only intended as a rhyme, or at least has no obvious connection with the sub-

ject. Among the *Rejang* and *Serawi* people a greater latitude is allowed to the *seramba* or *pantun*, the figure is pursued to greater length, and a kind of measured prose is often employed in place of confining themselves to the trammels of verse. The *pantun* is frequently framed into a kind of riddle whose meaning it requires some ingenuity to discover, and a blundering answer to which excites much mirth. These *pantuns* frequently contain words derived from the language of *Sunda*, which has been partially introduced into the poetry of all the tribes to the southward of *Kataun*, while to the northward the *Menangkabau* dialect prevails. The origin of this distinction is referred to the period of the wars between *Imbang Jaya* a Javanese prince and *Tuanku orang Muda* of *Menangkabau*, the traces of the *Sunda* dialect marking the limit of the possessions of the former.

In these contests the *pantuns* are supposed to be extemporaneous effusions, and perhaps sometimes are so in reality, but in general their memories are so stored with established verses, that they are not often put to the task of invention. Of their force and meaning it is extremely difficult to convey a just idea by any translation: whoever has attempted to transfuse the spirit of an oriental composition into a European language must have felt the difficulty of doing so satisfactorily, where the whole structure of the language is so different, and the whole current of ideas seems to flow in another channel. This is particularly the case with the *pantun*, whose chief merit consists in conciseness and point, and in conveying a deeper meaning than is contained in the literal words and expressions. The figures and allusions are often quaint, but occasionally evince a considerable degree of poetic feeling and force of imagination.

It is not only on these set occasions that *pantuns* are employed, they enter largely into their more common intercourse, and are essential accomplishments to all who aspire to a character for gallantry, or who hope to woo and win their lady's love. Skill and readiness in this kind of poetry is with them a passport to female favor, much in the same way that a readiness at compliment and flattery in conversation and the art of saying soft nothings serves the European candidate for the smiles of the fair: much of this kind of flirtation goes on independently of the open and public



display of skill, and is often accompanied with the interchange of flowers and other mute symbols which have all a mystic meaning intelligible to those who have been initiated into this secret mode of communication. Making due allowance for difference of customs, of wealth, and of progress in civilization, there seems to be much in the conduct of these entertainments and in the general deportment of the Sumatrans towards women, to indicate that they possess somewhat of that character of romantic gallantry which marked our own earlier ancestors, and there might be found as much delicacy of feeling and perhaps more of the poetry of the passion in their courtships, than in the over-refinement of modern English society. It must also be remembered that no people can be more jealous of female honour than the Sumatrans, and that all this is conducted with a strictness of decorum far greater than is observed in the free intercourse permitted by European custom.

A few examples of the different kinds of pantuns may not be unamusing, though it would be as difficult to convey an idea of the effect with which they are applied at the moment and on particular occasions, as to record the sallies and evanescent sparkles of wit that sometimes enliven our own tables, and which like the champagne that inspires them, would seem flat and dull if repeated next morning. Of the Malay pantun of four lines several examples have been already given by Mr Marsden, the strictness of their form and limits perhaps render them better suited to translation, but they are considered by the people of the interior as too stiff and prosaic, and as deficient in that boldness of allegory and recondite allusion which they consider the perfection of their own longer ones. The following are specimens of the Malay pantun, applicable to different occasions, such as the opening of a courtship, complaints of inconstancy, coyness, &c. expressions of compliment, of affection, of doubt, of ridicule or displeasure, and others which the reader may much better imagine to himself than they can be explained by words. In some the connection of the figure and the sentiment will readily be perceived, in others it is obscure, particularly where the allusions are idiomatic or have reference to popular fables or belief, and in others there is none at all.

Mamuti umbak di rantau kataun  
 Patang dan pagi tida berkala  
 Memuti bunga de dalam kabun  
 Sa tangkei saja iang menggila.

"The waves are white on the shore of Kataun, night and day they do not cease to roll ;—many are the white flowers of the garden, but one alone hath made me distracted with love."

Guruh ber buni sayup sayup  
 Orang di bumi samoa bembang ;  
 Jika ada angin ber tiup  
 Ada kah bunga mau kambang.

"The thunder rolls loud and deep, and the inhabitants of the earth are dismayed ; if the zephyr should now breathe upon it, will the flower expand its blossoms."

Ayer dalam ber tambah dalam,  
 Ujan di ulu bulum lagi tedoh ;  
 Hati dendam ber tambah dendam,  
 Dendam dauu bulum lagi sumboh.

"The deep waters have increased in depth, and the rain hath not ceased on the hills, the longing desire of my heart hath increased, and its former hopes have not yet been accomplished."

Parang bumban di sabrang,  
 Pohon di hela tiada karuan ;  
 Bulan pernama niatalah bindrang,  
 Sayang nia lagi di saput awan.

"The reed is cut down on the other bank, it is now at the mercy of the stream, draw it towards you ; the moon is at the full and shining, a cloud as yet intercepts her light (literally affection)."

Ulak ber ulak batu mandi,  
 Kian ber ulak tenang jua ;  
 Hindak ber tunah tunah ati,  
 Dewa membawa bembang jua.

"The stream becomes still behind the sunken rocks, and the waters are smooth and calm amid the eddies ; I try to quiet the

uneasiness of my heart, but there is a fairy that still disturbs its peace."

Permata jatu di rumput,  
 Jatu di rumput ber gelang gelang;  
 Kasih umpama ambun di ujung rumput,  
 Datang matahari nischaya ilang.

"The jewel fallen on the ground, though fallen among the grass, is glittering still, but thy love is like the dew on the flower, quickly disappearing when the sun comes forth."

Telah lama tiada ka rimbo,  
 Bumban ber bua garangan kini;  
 Telah lama tiada ber suo,  
 Dendam berubah garangan kini.

"It is long since we have been to the forest, perhaps the bumban (a species of flowering reed) is now gone to fruit; it is long since we have met, perhaps thy affections are now estranged."

Jeka sungguh bulan pernama,  
 Mengapa tiada di pagar bintang;  
 Jeka sungguh tuan bijaksana,  
 Mengapa tiada dapat di tintang.

"If indeed the moon is at the full, why does she not appear in the midst of her stars; if indeed thou art true and faithful, why is it denied me to behold thee."

Unggas bukan chintayu bukan,  
 Kira-nia daun selara tubbu;  
 Aches bukan, Malayu bukan,  
 Pandei nia amat ber main semu.

"T'was not a bird, neither was it the *Chintayu*,\* t'was only a withered leaf of the sugar cane; she is not of Achinese, neither of Malayan race, yet is she deeply skilled in the arts of deceit."

Bagimana menangkap landak,  
 Di hasop pinto nia dengan api;  
 Bagimana mula ber kahindak,  
 Deri mata turun ka hati.

\* The chintayu is a fabulous bird said to delight particularly in rain.

"How is the porcupine to be caught, smoke his hold with fire ; how is desire first kindled, from the eyes it descends to the heart."

A few specimens of the longer and more irregular Seramba of the people of the interior will be sufficient, and the Serawi dialect is selected as differing least from the Malay. The following may be supposed the opening of the contest.

Pandak panjang rantau di Musi,  
Maos meniamo rantau Tenang,  
Rantau Aman pandak sakali ;  
Hendak Anggan wong ku puji  
Mimpin bulan sanak bintang  
Anak penakan mata hari.

"Long and short are the reaches of the Musi (river), think you they are the same with the reaches of the Tenang, the shortest of all the reaches of the Aman ; willing or unwilling I will address my opponent, I will take the moon by the hand, though she is of the family of the stars and a daughter of the sun."

It may be answered as follows :—

Burong terbang mengelindang  
Sangkan terbang pagi pagi,  
Hindakkan bunga jeruju ;  
Amun wong sintano bulan,  
Rinchang sintano matahari  
Timbang betating ber teraju.

"The bird flies swift and straight, it flies early in the morning in search of the Jeruju flower ; if a person resembles the moon, and is also compared to the sun, take them up and try them in scales".

Titiran pikat nibang hari, Ingunan si Jiwo Jiwo, Jadi kampong burong tiong, jadi koun puneu siulan, Bringin di mana garangan masak, merangai meruntuh daun, sanalah dio maridawan, Amun sakali kali lagi, Taulah aku di idar'o, Hindak niabong ayam tangkap, Hindak ber judi kandong pitis, Hindak siri rai peliman, Hindak bunga, karang ko tuboh, kundang wong di rindu jangan, amun asso rindu kan dio, tangisi kian dalam hati.

"The turtle dove kept by Si Jiwo Jiwo calls day by day, the

minas are collected together and the tribe of pigeons; where the warringin tree is with ripe fruit, bare and stript of leaves, there they are all chattering; Since once more it has come to my turn, if you wish to fight cocks, take up your bird, if you wish to game, bring money in your purse, if you wish to eat siri, draw the siri box towards you, if you wish for flowers, string thyself (i. e. thou art thyself a flower) if you desire a lover, do not pine for him, if you do feel a longing towards him, conceal your feelings within your breast."

As an example of the puzzling questions or figures with which they sometimes try each others ingenuity, the following may be taken.

Ada kayu indan sabatang, Tumbuh di padang maha leber, Beringin bukan Beringin, Kruya bukan Kruya, Bodahan ganio ampat dahan, bedaun ganio ampat daun, sadahan chondong ka langit, niat ka mana bulan bintang, sa dahan chondong ka laut, niat ka mana raja ikan, sa dahan chondong ka gunong, niat ka mana gaja indan, sa dahan chondong ka bumi, niat ka mana anak Adam, Amun teritti sili warang, wong ku angkan dio guru, Amun de teritti sili warang, wong ku angkan anak murid.

"There is a great tree, growing on an extensive plain; it is not a beringin, neither it is a kruya; of branches it has only four, of leaves too it has only four, one branch points to heaven, what will become of the moon and stars; one branch points to the sea, what will become of the king of the fishes; one branch points to the mountains, what will become of the great elephant; and one branch points to the ground, what will become of the children of Adam; if you understand my riddle, I will take you for my instructor; if you do not understand my riddle, I will take you for my disciple."

In these examples several words occur which are foreign to the Malay language; some of these as wong (orang) indan, sili, &c. belong to the Sunda dialect and others as amun (it,) peliman, asso, angkan, &c. are Serawi.

To conclude this paper, the following are the results of a series of trigonometrical observations made by the late Captain H.

Auber for determining the distances and height of some of the more remarkable hills in the neighbourhood of Bencoolen.

Distance of the Sugar Loaf from mount Felix, 17.84 miles.

Perpendicular height of the Sugar Loaf, 2601 feet.

Distance of the Laye or Sungey Lamau hills, 28.37 miles.

Perpendicular height of their highest points, 7797 feet.

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°. The preceding paper is copied from the *Bencoolen Miscellany*, a collection of papers by different persons, printed at Bencoolen in 1821-22, under the auspices of Sir T. S. Raffles.—ED. J. I. A.

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## LEGEND OF THE BURMESE BUDHA, CALLED GAUDAMA.\*

By the Revd. P. BIGANDET.

CHAPTER 11TH (*Continued*).

WHILST the most excellent Phra was remaining in the Weloowon monastery, enjoying himself in the midst of his disciples and the crowds of hearers that daily resorted thither to listen to his preachings, his father Thoodandana<sup>74</sup> who had ever been anxiously and sedulously gathering every possible information respecting his son, from the time he withdrew into solitude, and performed during six years the hardest works of bodily mortification, was then informed that his son had begun to preach the most perfect law, and was actually staying in the city of Radzagnio. He felt then an irresistible desire to see him once more before his death. He therefore ordered a nobleman of his court to his presence and said to him: "nobleman, take with you a retinue of a thousand followers and go forthwith to the city of Radzagnio: tell my son that I am now very advanced in years, that I long to see him once more before I die; desire him, therefore, to come over with you to the country of Kapilawot." The nobleman having received the royal message, took his leave from the King, and attended with a thousand followers, set out for Radzagnio. When he drew near to the Weloowon monastery, he found it crowded with an innumerable multitude of people listening with respectful attention to Budha's instructions. Unwilling to disturb the audience, the nobleman delayed for a while the delivering of his royal master's message. Remaining at the extremity of the crowd, he, with his followers, eagerly lent the utmost attention to all that Budha was saying. They at once obtained the state of Arahat, and applied for admission into the order of Rahans. The favor was granted. As to the Pattas and Hiwarans required for such a great number of applicants, Budha stretched his right arm, when there appeared at once the Pattas and dresses required. The new converts put on the dress of their order, when they all appeared with the dignified countenance and meek deportment of Rahans who had sixty years of profession. Having arrived at the exalted state of Ariahs,

\* Continued from p. 385 of vol. viii.

they became indifferent and unconcerned about all the things of this material world, and the King's mandate was entirely lost sight of.

The sovereign of Kapilawot, seeing that his nobleman did not return from the country of Magatha,<sup>75</sup> and that no news were heard of him, dispatched a second messenger with an equal number of followers on the same errand. They all were taken up with Budha's preachings and became Rahandas. The same thing happened to seven messengers, successively sent to Radzagnio for the same purpose. They, with their respective retinues, became converts of the first class.

Disappointed at seeing that none of the messengers had returned to bring him some news regarding his son, king Thoodandana exclaimed: is there no one in my palace, that bears any affection unto me? shall I not be able to get a person who could procure to me some information respecting my son? He looked among his courtiers and selected one named Kaludari as the fittest person for such a difficult errand. Kaludari had been born on the same day as Budha, with him he had spent the age of his infancy, and lived on terms of the most sincere friendship. The King said to him: noble "Kaludari, you know how earnestly I long to see my son. Nine messengers have already been sent to the city of Radzagnio to invite my son to come over to me, and none of them has, as yet, come back to me to bring some information respecting the object of my tenderest affections. I am old now, and the end of my existence is quite uncertain; could you not undertake to bring my son over to me. Whether you become Rahan or not, let me have the happiness of contemplating once more my beloved son, ere I leave this world." The nobleman promised to the King to comply with his royal order, and attended with a retinue of a thousand followers, he set out for the city of Radzagnio. Having reached the Weloowon monastery, he listened to Budha's preachings and, like the former messengers, he became at once Rahanda with all his followers.

Gaudama having obtained the Budhaship spent the first season (lent), in the solitude of Migadawoon. Thence he proceeded to the solitude of Ooroowela, where he remained three months, until he had completed the work of converting the three Kathabas. It was on the full moon of Piatho (February) that he entered into



the city of Radzagnio, accompanied with his thousand disciples. He had just stayed two months in that place, so that there were five months since he had left the country of Baranathee. Seven days after Kaludari's arrival, the cold season being over, the new convert addressed Budha as follows: illustrious Phra, the cold season is over, and the warm season has just begun, this is now the proper time to travel throughout the country, nature wears now a green aspect, the trees of the forests are in full blossom, the roads are lined, on the right and left, with trees loaded with fragrant blossoms and delicious fruits: the peacock proudly expands its magnificent tail: birds of every description fill the air with their ravishing and melodious singing. At this season, heat and cold are equally temperate, and nature is scattering profusely its choicest gifts. With such and like expressions, Kaludari endeavoured to dispose Budha to undertake a journey to Kapilawot. Gaudama hearing all this, said: what means this? to what purpose are uttered so many fine expressions? Kaludari replied: your father, O! blessed Budha, is advanced in years, he has sent me to invite you to come over to Kapilawot that he might see you before his death, he and your royal parents will be rejoiced at hearing your most excellent law. Well, said Budha, go and tell the Rahans to hold themselves ready for the journey. It was arranged that 10,000 Rahandas from Magatha, and 10,000 from Kapilawot would accompany the illustrious travellers. The distance between the two countries is sixty Youdzanas. Sixty days were to be employed in going over that distance, so they were to travel at the rate of but one Youdzana a day.

Kaludari was anxious to go and inform the King of the happy issue of his negotiation. He flew through the air and in a short time reached the palace of the Lord of Kapilawot. The King seeing him was exceedingly glad, he desired the illustrious Rahan to sit in a becoming place, and gave orders that his patta should be filled with the choicest dishes from the royal table. Meanwhile Kaludari related to the King all the circumstances attending his journey. When he had spoken, Thoodandana desired him to take his meal, Kaludari begged to be excused, saying that he would go and take his meal in the presence of Budha. Where is he now, replied the King? Mighty lord, answered Kaludari,

Budha accompanied with twenty thousand Rahandas, is on his way to this country, to pay a visit to his royal father; on this very day he has left the city of Radzagnio. Thoodandana was exceedingly pleased, he said again to Kaludari: eat your meal here, and please to take another meal to my son, I wish to supply him daily with his food during all his journey. Kaludari acceded to the King's request. When his meal was over, they cleansed his patta with the most exquisite perfumes, and afterwards filled it with the best and choicest eatables. The patta was then respectfully handed to the aerial messenger, who in the presence of a large crowd of people, rose in the air with the patta under his arm, and in an instant arrived in the presence of Gaudama, to whom he offered the vessel containing the delicious food from his father's table. Budha received the food with pleasure and ate it. The same thing was daily done during all the time the journey lasted. Kaludari went every day to the palace through the air, ate his meal there, and brought that of his distinguished instructor, who during all the way partook of no other food but that which was brought over to him from his father's palace. Every day Kaludari carried news of the progress of Budha's journey. By this means, he increased in the heart of all an ardent desire of seeing him, and disposed every one to wait on the great Gaudama with favorable and good dispositions. The services rendered on this occasion by Kaludari were much valued by Budha himself, who said: Kaludari is disposing the people to welcome our arrival, he is therefore one of the most excellent among my disciples.

The princes and all members of the royal family having heard of Gaudama's arrival, consulted among themselves as to the best means of paying due respect to the noble and illustrious visitor. They selected the grove of Nigrandatha,<sup>76</sup> as the fittest place to receive him with his disciples. The place was properly cleared and made ready for the long expected company. The inhabitants of the country, attired with their richest dress, carrying flowers and perfumes, went out to meet Budha.<sup>77</sup> Children of both sexes opened the procession; they were followed by the children of the noblest families, next came all the persons belonging to the royal family; all went to the grove of Nigrandatha, where Budha had just arrived with the twenty thousand Rahans

that accompanied him. The princes, secretly influenced by pride, thought within themselves, this prince Theiddat is younger than we all, he is but our nephew, let the young people prostrate before him; as to ourselves, let us remain sitting down behind them. This was quickly perceived by Budha, who said to himself: my relatives refuse to prostrate before me, I will now even compel them to do so. Whereupon he entered into ecstasy, rose in the air, and standing over the heads of his relatives, as a person shaking dust over them, he exhibited to their astonished regards, on a white mango tree, wonders of fire and water. Thoodandana surprised at such a wonderful display of supernatural power, exclaimed; illustrious Budha, on the day you were born, they brought you to the presence of the Rathee Kaladewela to do homage to him, on that occasion having seen you placing your two feet on the Rathee's forehead, I prostrated before you for the first time. On the day of the ploughing solemn rejoicings, you were placed under the shade of the tree Vsampoo-tha-pie. The sun by its daily motion had caused the shadow of all surrounding trees to change its direction, that of tree under which you were placed, alone remained unmoved, I prostrated a second time before you, and now at the sight of this new wonder, I again bow down to you. The example of the king was instantly imitated by all the princes, who humbly bowed down to Budha. Satisfied with having humbled his proud relatives, Budha came down, and sat in the place prepared for him. He then caused a shower of red rain to pour down over the assembled multitudes. It had the virtue to wet those who liked it, and not to wet those who disliked it. This is not, said Budha, the only time when such a wonder has happened, the same thing took place once during one of my former existences, when I was prince Wethandra. He went on, relating the most interesting circumstances of that former state of existence. The whole assembly now delighted at hearing his preachings, and witnessing the display of his power. They all withdrew, when the preaching was over, and retired to their respective places, without, however, inviting Budha to come and take his meal at their houses.

On the following morning, Budha set out with his twenty thousands followers to get his meal. When he had arrived at the gate

of the city, he stood for a while, deliberating within himself whether he would go to the palace to receive his meal, or go from street to street to beg for it. He paused for a while, reflecting on the course of conduct that had been followed by all the former Budhas. Having known that they all without exception had been in the habit of going out from house to house in quest of their food, he resolved at once to follow their example. Whereupon he entered the city and began to perambulate the streets in search of his food. The citizens from the various stories of their houses were looking out with amazement at such an unusual sight. How is this, said they, we see prince Ravula and his mother Yau-thandara going out attired with the richest dress, sitting on the most elegant conveyance, and now Prince Theiddat<sup>78</sup> is appearing in the streets with his hairs and beard shaved, covered with a yellow dress, such a thing is unbecoming indeed. Whilst they were holding this language, on a sudden rays of the purest light shot forth from the person of Budha, and illuminated all the objects around his person. At this unexpected sight, they all joined in praising and extolling the virtue and glory of Budha.

King Thoodandana was soon informed that his son was perambulating the streets of the city in the dress of a mendicant. Startled at such a news, he rose and seizing the extremity of his outer garment, he run to the encounter of his son. As soon as he saw him, he exclaimed : illustrious Budha, why do you expose us to such a shame. Is it thus necessary to go from door to door to beg your food ? Could not a better and more decent mode be resorted to for supplying your wants. My noble father, said Budha, it is meet and convenient that all Rahans should go out and beg their food. But, replied the monarch, are we not descendants of the illustrious Princes Thamadat. There is not a single person in our illustrious race that has ever acted in such an indecorous manner. Budha retorted : my noble father,<sup>79</sup> the descent from the glorious princes Thamadat is something that belongs both to you and your royal family, the lineage of a Budha is quite different from that of kings and princes, it bears no resemblance to it. Their ways and manners must essentially differ from those of princes. All former Budhas have always been in the habit of thus going out in search of their food. Then stopping his course and standing in the street, he uttered the following stanzas : my

noble father, it is not proper that I should ever neglect the duty of receiving alms, it is an action good in itself, tallying with truth, deserving of great merits, and productive of happiness in this and future existences. When he had spoken his father obtained the state of Thautapan. He went to the palace with his father, saying: those who go to beg food according to the law, are doing well, and prepare to themselves a state of happiness both for the present and future, those who do go begging, but not according to the law, ought to refrain from doing so. He was speaking in that way when he entered the palace. His aunt Gaudamee become a Thautapan, and his father after this second preaching, reached the state of Thagadagan.

Thoodandana invited Phra and his followers to ascend to the upper part of the palace and partake of the meal prepared for him. When the meal was over, all the ladies of the palace come to pay their respects to Budha. Some of them urged the Princess Yathandara to do the same. But she refused complying with their request, in the hope that a greater deference would be shown to her, when Budha would come and visit her in her apartments. Perceiving her studied inattendance, Phra said to his father: my noble father, I will go and visit the princess, and will, without saying a single word, make her pay obedience and prostrate before me. King Thoodandana took up the patta and accompanied his son to the princess's apartments. Budha had scarcely been seated on the place destined to him, but Yathandara threw herself at Budha's feet, placing her two hands on both ankles, touched repeatedly the upper part with her forehead. Meanwhile Thoodandana mentioned to his son the respectful and affectionate regard she had ever entertained for his person. Since she heard, added the king, that you had put on the yellow robe, she would wear but clothes of that color; when she knew that you took but one meal a day, that you slept on a small and low couch, that you denied to yourself the use of perfumes, she instantly followed your example, ate but one meal a day, slept on a low couch and gave up without regret the use of essences. Illustrious monarch, replied Budha, I do not wonder at the practices of late observed by the princess Yathandara; in former times when her merits were but as yet few and imperfect, she was living at the foot of a

certain mountain, and knew even then how to behave with becomingness and a strict regard to all religious duties.

On this very day was fixed for the taking place of five grand ceremonies. Ananda,<sup>80</sup> the younger brother of Budha, was to have his head washed, to put on the Thing Kiat, to be raised to the dignity of crown prince, to be put in possession of his own palace and to be married. When Phra was leaving the palace he bade the young prince to take his patta and follow him. Ananda instantly complied with the request, and departed. He was just leaving the palace, where the young lady he was to marry, eagerly recommended him soon to return. Meanwhile, leaving on a window's side, she followed him with the eyes as far as he could be seen. Ananda would have gladly given back the patta to its owner, but as he felt backward to hand it over to him he followed Budha as far as the monastery. Though he had no intention of becoming Rahan, on his way to that place, yet despite of his former disposition, he entered into the society of the perfect. So that on the second day after Phra's arrival to Kapilawot, Ananda become a Rahan. Some other writings mention that this happened but on the third day.

On the seventh day after Phra had entered into the city of Kapilawot, the mother of Raoula, princess Yathandara, put on her son the choicest ornaments, and sent him to Phra, saying previously to him, "Dearest son, he whom you see surrounded by twenty thousand Rahandas, whose face resembles gold, and whose body is similar to that of the chief of Brahmas, is indeed your father. He was formerly the owner of four gold vases, which have disappeared on the very day he withdrew into solitude, go to him now, and say respectfully that being at present crown prince of this kingdom, destined to succeed your grandfather in the throne, you wish to become possessed of the property that will befall you in right of inheritance." The young prince departed. Having come into the presence of Budha, he endeavored with the simplicity and amiability becoming a child to ingratiate himself in his father's favor, and said how happy he was to be with him, adding many other particulars befitting his age and position. Budha having eaten his meal and performed his usual devotions, rose up and departed. Raoula followed behind, saying: "Father,

give me my inheritance." Budha appearing neither displeased nor vexed at such a demand, none of his followers durst tell the young prince to desist from his apparently rude behaviour, and go back to the palace. They all soon reached the monastery. Phra thought within himself, Raoula is asking from me but perishable things, but I will give him something more excellent and lasting. I will make him partaker of those goods I have gathered at the foot of the Bandi tree, and thereby will provide for him a better inheritance for the future. Whereupon he called Thariputra and said to him, "Beloved disciple, the young prince Raoula is asking from me a worldly inheritance which would avail him nothing, but I wish to present him with something more excellent, an imperishable inheritance, let him become a Rahan." Mankalan shaved the head of Raoula and attired him with the Hiwaran. Thariputra gave him the first instructions. When he became Patzing, Kathaba trained him up to the duties of his new profession.

King Thoodandana had seen his first son Prince Theidat leaving the palace, all the attracting allurements of a brilliant court, and spite of all his precautions, going into a solitude and becoming a Rahan. Next to him his younger son Ananda, though assured by the promises of soothsayers of becoming a great and mighty ruler, had joined the society of Rahans. These two events had deeply afflicted him. But on hearing that his grandson had also become a Rahan, he could not longer keep his affliction within himself. I had, said he, hoped that my grandson would succeed me on the throne; this thought consoled me for the loss of my two sons. What will become of my throne. Now the royal succession is at an end, and the line of direct descendants is for ever cut and irrevocably broken up.

Thoodandana obtained the state of Anagam. He said to himself,—it is enough that I should have had so much to suffer and endure on the occasion of my two sons and my grandson becoming Rahans, I will spare to other parents a similar affliction. He went to Budha's place and having paid him his respects in a becoming manner, he asked him to establish a regulation forbidding any son to become Rahan, unless he had the consent of his parents. Budha assented to his father's wish, and preached to him the law.

When the instruction was finished, the king bowed to him, rose up, turned on the right and departed. Budha calling immediately the Rahans said to them: beloved Bickus, no one is to be admitted to the profession of Rahan, ere he has obtained the consent of his parents, any one that shall trespass this regulation shall be guilty of a sin.

On a certain day, Phra having eaten his meal at his father's palace, the king related to him the circumstance of a Nat who, whilst he was undergoing great austerities in the solitude, had come and conveyed the report of his son having succumbed under the hardships of mortification, but he would never give credit to such a rumour as he was certain that his son could not die ere he had become a Budha. My illustrious father, replied Budha, you are much advanced in merits, there is no wonder at your not believing a false report, but even in former ages, when your merits were as yet very imperfect, you refused to believe your son was dead, though in proof of this assertion, bones were exhibited before you in confirmation thereof. And he went on relating many particulars that are to be found in the history of Maha Damma Pala. It was at the conclusion of this discourse that the king became Anagam. Having thus firmly established his father in the three degrees of perfection, Budha returned to the country of Radzagnio, and lived in the same place as before together with all his followers.

When he was in that country, a certain rich merchant named Anatapeing come to Radzagnio with five hundred carts loaded with the most precious goods, and took his lodging in the house of an intimate friend. Whilst living with his friend, he heard that Gaudama had become a Budha. He suddenly was seized with an earnest desire of seeing him and hearing his doctrine. On a certain day, he rose at an early hour, and perceived reflected through the window some rays of an uncommon brilliancy. He went in the direction of the light to the place where Budha was preaching the law. He listened to it with great attention and at the end of the discourse he obtained the state of Thautapan. Two days after he made a great offering to Budha and the assembly, and requested Budha to come to the country of Thawati. The request was granted. The distance to Thawati was forty five Youdzanas. Anatapeing spent enormous sums that one monastery



should be erected at each Youdzana distance. When Budha was approaching, the pious merchant arranged as follows for the reception of Budha and presenting to him a splendid monastery called Dzetawon, which he had made ready for him. He sent first his son richly attired with five hundred followers belonging to the richest families, then followed his two daughters with five hundred girls, all decked with the most costly ornaments. Every one carried flags of five different colours. These were followed by five hundred Damsels, having the rich man's wife at their head, each carrying a pitcher of water. Last of all came Anatapeing, with five hundred followers, all wearing new dresses. Gaudama let the crowd walk in front and he followed, attended with all the Rahans. When he entered the grove, he appeared as beautiful as the peacock's tail when completely expanded. Anatapeing asked Gaudama what he was to do with the monastery. Let it be offered, said Budha, to all the Rahans that may come in future to this place from what quarter soever. Thereupon the rich man, holding a gold vessel of water, poured its contents on the hands of Budha, saying: I present this monastery to Budha and to all the Rahans that may come hereafter to reside therein. Budha said prayers and thanks in token of his accepting the offering. Seven days were devoted in making this great offering, and during four months, uninterrupted rejoicings went on, in commemoration of this great and solemn donation. For the purchase of the place, and the expence for the ceremony, enormous sums were expended. During the era of former Budhas, this very place had always been purchased and offered to them and their disciples.

[N. B. Here is found narrated in full the history of a celebrated physician named Dzewaka. As such story has no reference whatever to Budha's career, I will give but a very succinct account of it.]

At a certain time,<sup>81</sup> when Budha lived in the city of Radzag-nio, the country of Wathalee was made rich, gay and attractive by the presence of a famous courtesan. A nobleman of Radzag-nio, who had just returned from that country, narrated to the King all that he had seen at Wathalee, and induced the monarch to set up in his own kingdom some famous courtesan who would be skilful in music and dancing, as well as attractive by the form

and accomplishments of her person. Such a person having been procured, she was by the munificence of the King placed on a most splendid footing, and one hundred pieces of silver were to be paid for each evening's visit. The King's son being rather assiduous in his visits to her place, she became pregnant. Aware of her state the courtesan affected to be sick until her confinement. She directed her servant to throw out the newly born infant, in some rubbish, in some lonely and distant place. The next morning, the King's son going out with some attendants, chanced to pass close to the spot where the infant had been deposited. His attention having been attracted by the noise of crows hovering close by, he went to see what it was. To his great surprise, he saw an infant yet breathing, half buried in some rubbish. Taken by the beauty of this little creature, the prince ordered the child to be taken to the palace, where he was brought up with the greatest care and attention. He was named Dzewaka, which means life, because the prince, when he found him out, inquired if he was alive. The young lad having reached the years of discretion, was unwilling to remain in the palace not attending to any business. In order to afford relief and comfort to his fellow creatures, he resolved to study medicine. He repaired to Benares, placed himself under the direction of a famous physician, and soon became eminent by his extreme proficiency in the profession. Having left his master, and begun practice in his own name and for his own account, Dzewaka worked the most wonderful cures which soon procured to him unbounded wealth and an extraordinary reputation.

Dzewaka was at the height of his fame, when on a certain day, Budha happened to be troubled with belly ache. He called Ananda and said that he wanted some medicine to relieve him from pain. Ananda went to the place where lived the celebrated Dzewaka, and informed him of Budha's complaint. The doctor ordered first a rubbing of oil, which was to be repeated three days after. This remedy not having a full effect, Dzewaka took three lily flowers, whereupon he spread several powders, and came to Budha, saying: Most glorious Phra, here is one lily flower, please to smell it; This will be followed by ten motions. Here is a second one; the smelling thereof will produce a similar effect, and this last one will cause the same result. Having handed over

the three flowers, the doctor paid his respects to Budha, turned on the right and left the monastery. When he was crossing the gate, he thought within himself, I have given a medicine calculated to cause thirty motions, but as the complaint is rather of a serious and obstinate character, twenty-nine motions only will take place, a warm bath would be required to produce the thirtieth; with this reflexion he departed. Budha who saw all that passed in the doctor's mind, called Ananda and directed him to prepare a warm bath. A little while after, Dzewaka came back to Budha and explained to him his prescription. Budha was soon restored to his former health, and Dzewaka told him that the people were preparing to make him offerings. Mankalan went to the son of Thauva, a rich man, to get some rice from a field that was watered with milk. The owner gave rice to Mankalan and urged him to partake of it, assuring him that there was some other in reserve for Budha, Mankalan assented. After the meal, his patta was cleaned with perfumed water and filled with the choicest food. Mankalan took it to Budha who ate it. Afterwards he preached the law to the king and to an immense crowd; amongst them was Thauva's son. They all obtained the first degree of perfection but Thauva reached at once the state of Arahata.

Dzewaka came again into Budha's presence, and requested the favor of presenting him two splendid pieces of cloth he had received in present from a king whom he had cured of a most distressing distemper. Moreover he wished that the Rahans should be allowed to receive clothes of a better sort than those they were wont to wear. Budha received the two pieces and preached the law to the donor who attained the state of Thautapan. Dzewaka rising from his place wheeled on the right and departed. A little while after, Gaudama called the Rahans and said to them, beloved Bickus, now I give permission to the faithful to make offerings of cloth for your dress. Whoever is pleased with his present dress, let him wear it, whoever is disposed to receive some from the people, let him do so. But I must praise you for having hitherto been satisfied with the ancient dress. The people of the city having heard of the permission given to the Rahans, offered at once more than one hundred thousand pieces of cloth. Their example was followed by the people of the country, who made offerings to the same amount.

Budha had spent the first season in the country of Baranathée in the grove of Migadawon. The second, third and fourth seasons were passed at Radzagnio in the monastery of Welowon, the fifth in the country of Wathalee in a place called Kutagara, the sixth on the mountain Makula.

## CHAPTER 12TH.

On a certain day a rich man of the country of Radzagnio went to enjoy himself on the banks of the river Ganges. He saw a log of sandal wood floating on the stream, took it up and had a beautiful patta made of it. When finished, he wrote upon it these words: He who can fly in the air, let him take it. The patta was raised on the top of a succession of hampers tied together sixty cubits high. Some heretics living in the neighbourhood asked, on several occasions, from the rich man to get the patta; but he answered them that he would give it but to him who by flight could reach it. The headman of those heretics feigned to prepare himself to fly, but when he was extending his arms, and raising one of his feet, his disciples, according to a preconcerted plan, seized him, saying: It is not becoming that you should exert yourself for such a trifle. But the very rich man would not be thus deceived, he persisted in his former resolution, and during six days resisted all their entreaties. On the seventh day, Mankalan happened to go to that place in search of his food. He was informed of all that had just happened. He was told that the rich man and all his family would become disciples to him who could by flight make himself possessed of the sandal wood patta. Mankalan was ready for the glory of Budha, to raise himself in the air, but his companion refused to allow him to do it, saying that such an easy work could easily be accomplished by one less advanced in merits. Mankalan agreed to his proposal. Whereupon entering into the fourth state of Dzan, his companion rose in the air carrying with the toes of one of his feet an enormous roe, three quarters of a Youdzana wide. The whole space between him and the bystanders appeared darkened. Every one was half dead with fear, lest perhaps it should fall over his head. Mankalan's companion had the roe split into two parts, and his person then appeared to the view of the assembly. After having during a whole day exhibited such a mighty power he caused the

roe to fall on the place he had taken it from. The rich man bade him to come down, fully satisfied with the display of such power. The sandal wood patta was taken down, filled with the best rice, and presented to him. The Rahan received it and went back to his monastery. Many persons living at a distance from the place where the wonder had been exhibited, followed him to the monastery, begging him to show them some sign.

As they approached the monastery, Budha hearing the noise, enquired what it was. He was informed of all the particulars of the event that had just taken place. He called the Rahan into his presence, took the patta, had it broken into pieces and reduced to dust,<sup>82</sup> and forbade the Rahan ever to make such a display of his power.

The heretics soon heard of the prohibition given by Gaudama to his disciples. They thought that no one would dare to match them in the display of wonders, and that they could easily ascertain their superiority over him. The ruler of Radzagnio hearing of this news, went to Budha and enquired as to the motive of such prohibition. Budha told him that the prohibition regarded his disciples only, but not himself. The heretics, informed of this, said: What will become of us? Gaudama himself will show signs. They held a council among themselves as to what was to be done. Gaudama told the king that in four months he would make a grand display of his miraculous power in the country of Thawatee, as it was in that place that all former Budhas had showed signs. The heretics from that day never lost sight of Budha for a moment, they followed him day and night. They gave order that a large and extensive covered place should be prepared for them, where they might show their power and outshine the power of the Rahan Gaudama. Budha having said that he would select the spot where stood a white mango tree, for the scene of his miracles, the heretics caused the total destruction of all mango trees in that direction.

It was on the full moon of July, that Budha entered in the country of Thawatee. A gardener gave him in present a large mango fruit. Ananda prepared the fruit and Budha ate it. When this was done, the stone was handed to Ananda with injunction to plant it in a place prepared to receive it. When planted, Bud-

ha washed his hands over it, and on a sudden, there sprung up a beautiful white mango tree, fifty cubits high, with large branches loaded with blossoms and fruits. To prevent its being destroyed, a guard was set near it by the King's order. Dismayed at such a wonderful sign, the heretics fled in every direction, to conceal their shame and confusion. Their headman named Pourana, took from a husbandman a large jar with a rope, tied up the vessel with one extremity of the rope, passed the other round his neck, and flinging first the jar and next himself into the river, where the water was very deep, he was drowned and went to the lowest hell called Awidzee.

Budha created in the air an immense road reaching east and west to the extremities of the world. When the sun began to verge towards the west, he thought the time had come to ascend into that road in the presence of an immense crowd, that covered an area of thirty-six youdzanas, and there to make a display of his wonderful powers. He was on the point of crossing the threshold of the bungalow that had been erected for him, by the care of Nats, when a female convert, named Garamie, who had become an Anagam, came into his presence, and after the usual prostrations said to him : Glorious Budha, it is not necessary that you should take the trouble of working wonders, I, your servant, will do it. What wonder shall you work, my daughter Garamie, replied Budha. I will, said Garamie, fill up the world with water, and plunging in the water, in an eastern direction, I will come back and re-appear in the west, like a water fowl. On my appearance before the crowd, they will ask, what is this water fowl? and I will answer to them this water fowl is Garamie the daughter of the most excellent Budha. This is the wonder I will work. The heretics on seeing it, will say to themselves: if such be the power of Garamie, how much greater and more wonderful must be that of Budha himself? I know, said Budha, that you have such a power, but it was not for your sake that these crowds have been gathered together, and he refused the solicited permission. Garamie said to herself: Budha would not allow me to work this great wonder, but there is some one else that can do greater things than I, perhaps Budha will not be with them so inflexible as he is with me. She then withdrew to a becoming place.

Budha thought within himself, there are many among my disciples, who can make a display of great wonders: it is meet that the crowds should be aware of it, and see how with hearts stout like that of the lion, they are ready to perform the most wonderful feats. He said aloud: Who are they, those who can work wonders?—let them come forward. Many came in his presence with a lion like boldness and a thundering voice, craving for the honor of displaying supernatural powers. Among them was a rich man named Anathapeing, a female child called Hera, a grown up woman, and Mankalan. They volunteered their services to perform the most extraordinary wonders in order to frighten at once the heretics, and make them to understand that if such a power belonged to the disciples, what must be that of Budha himself. But Budha would not accept their proffered services, and said to them, that the people had not been assembled there for their sake, but for his, and that to him alone was reserved the task of enrapturing the crowd, by the great wonders he was preparing to show. Addressing Mankalan, he said to him that being a Budha he could not leave to others the trouble of performing his own duty. In former existences, when he was a bullock, he drew from a muddy place a heavily laden cart, to save a Brahmin's property, and rejoice his heart.

Budha ascended into the immense road he had created in the air, in the presence of the crowd that filled a place of eighteen youdzanas in breadth and twenty-four youdzanas in length. These wonders which he was about to display, were the result of his own wisdom, and could not be imitated by any one. He caused a stream of water to issue from the upper part of his body and flames of fire from the lower part and on a sudden the contrary took place again, fire issued from his right eye and streams of water from his left eye, and so on from his nostrils, ears, right and left, in front and behind, the same wonder happened in such a way, as the streams of fire succeeded the streams of water, but without mingling with each other. Each stream in an upward direction reached the seats of Bramahs, each stream in a downward direction penetrated as far as hell. In an horizontal direction, they reached the extremities of the world. From each of his hairs, the same wonderful display feasted the

astonished eyes of the assembled people. The six glories gushed as it was from every part of his body, and made it appear resplendent beyond description. Having no one to converse with, he created a personage, who appeared to walk with him. Sometimes he sat down whilst his companion was pacing along and at other times he himself walked, whilst his interlocutor was either standing or sitting. During all the while Budha put to him questions which he readily answered, and in his turn replied to the interrogations he made to him. At intervals, Phra preached to the crowd who were exceedingly rejoiced and sung praises to him. According to their good dispositions, he expounded the various points of the law. The people who heard him, and saw the wonderful works he performed, obtained the understanding of the four great principles.

#### NOTES.

74. In glancing over the episode of Thoodandana's deputation to his son to invite him to come and visit his native country, the reader is almost compelled to confess that the motive that influenced the King was but inspired by the natural feeling of beholding once more before he died, him whose fame, spread far and wide, rendered him an object of universal admiration. Was the monarch ever induced by considerations of a higher order, to send for Budha? There is no distinct proof in support of this supposition. He was a father, and he but obeyed and followed the impulse of his paternal heart. He entertained a high sense of his son's distinguished qualifications, he had faith in the wonderful signs foretelling his future matchless greatness. He desired, therefore, to honor him in an extraordinary way, on the very spot where he had been born. But he appeared to concern himself very little about the doctrines he was preaching with a never equalled success. The King exhibited a great amount of worldly mindedness, until his mind had been enlightened by the oral instructions of the great reformer.

It is difficult, if not impossible, to form an accurate idea of the effect caused on the mass of the people by Budha's preachings. We see that eminent and zealous reformer surrounded with thousands of distinguished disciples, in the country of Rattagnio. These converts belonged chiefly to the class of anchorites and philosophers already alluded to in some foregoing notes, as existing at the time Budha began to enter the career of preaching. But the great bulk of the populations of the various places he visited, seemed to have received for a long time, little or no impressions from his discourses. The opponents of Budha, the Brahmins in particular, exercised a powerful influence over the public mind. They used it most effectually for retaining the ancient hold over the masses. It required the extraordinary display of the greatest wonders to break through the almost insuperable barriers raised by his enemies. From that period we see the people following Budha, crowding round him, and showing unmistakeable signs of belief in him.

The only ground to account for this undeniable result, is the philosophical method adopted by Budha in expounding the principles of his system. His mode of proceeding in the gradual development of his ideas, retained the abstruseness peculiar to subjects discussed in schools of Philosophy. The technical terms so familiar to scholars, prove enigmatical to the uninitiated *vulgar*. It takes a long time before maxims elaborated by scholars be so far popularized, as to be understood by the unlearned, which in every age and country have always constituted the great mass of the people. If the mind of the generality of men is unable to comprehend at first a system of doctrine, we cannot wonder at the slow progress made by the preachings of the great reformer: but the working of wonders is a



tangible fact operating upon the senses of the multitude, eliciting their applauses and disposing them to yield an implicit faith to all the instructions imparted by the wonderful being that is gifted with supernatural powers. Feelings and not reason become the foundation of a belief which grows stronger in proportion to the mysterious obscurity that encompasses the proposed dogmas, when supported by wonderful deeds.

At the time Thoodandana sent messengers to his son, the great work of conversion was carried on with a most complete and hitherto unheard of success. The hall of the Welooan monastery was too small for the thousands that flocked thither to hear Gaudama. Without its precincts, crowds stood motionless, listening with unabated attention to the discourses that fell from his lips. So crowded was the audience, that the messengers had no chance to make way to the presence of the preacher. Struck at the intense attention paid to what was said by their master's son they too become acquainted with the subjects of the instructions. What was listened to from motives of mere curiosity soon made a deep impression upon their minds. The magic powers of the irresistible eloquence of Budha worked almost instantaneously a thorough change in their dispositions, and they became converts. So perfect was their conversion that they forget for the sake of truth, the very object of their mission. They became at once Members of the Assembly and took rank among the Rahans. They attained the state of Ariahs and were foremost among the perfect. The great attainments arrived at by the Ariahs communicated to the material portion of their being, such an extraordinary amount of amazing virtues or properties that it became so refined as to partake to a certain degree of the nature of spirit. Hence we see the Rahandas going over immense distances, through the air and performing deeds of a supernatural order. The power of working miracles is, therefore, inherent to perfection; and it is greater or smaller in proportion to the degree of perfection possessed by individuals. We find that power expanded in Budha to an unlimited extent, because his mental attainments were boundless.

75. Magatha is a country in the north of India. It occupied nearly the same extent of territory now called Behar, in Bengal. The Pali or sacred language of the southern Buddhists, is often called the language of Magatha. Hence we may infer that it was the common language of that country. It is probable that the Pali language was extensively spoken in the days of Gaudama and it was the channel through which he and his disciples long after him conveyed their religious instructions to the multitude of converts. The Pittagat or the last amended collection of sacred writings, is written in Pali, which is looked upon in Ceylon, Nepal, Burmah, and Siam as the language of sacred literature. Except in some old manuscripts, where the old square Pali letters are used, the Burmese employ their common alphabetic characters for writing Pali words. The words having to pass first through a Burmese ear, and next being expressed by Burmese letters, undergo great changes. To such an extent does the metamorphosis reach, that very often they are scarcely recognizable. The Burmese, however, deserve great credit for having in very many instances, retained in their Orthography of Pali words, letters which, though not at all sounded, indicate to the eye the nature of the word, its origin, and its primitive form.

In the southern parts of Burmah, the Pali language is learned, but not studied, used but not understood by the inmates of monasteries. They are all obliged to learn certain formulas of prayers to be daily recited in private, and on great and solemn occasions, to be chanted aloud in the presence of a crowd of pious hearers. The writer anxious to acquire some knowledge of the sacred language, visited often those monks, who among their brethren enjoyed a certain fame for learning, with the express intention of becoming an humble student under the direction of one of the best informed of the society. He was thoroughly disappointed at finding those who proffered their services in great earnest, quite ignorant and utterly incapable of giving him the least assistance.

The Burmese have translated in their vernacular tongue most of the sacred writings. In many instances the translation is not exactly what we call interlineary, but it approaches to it as near as possible. Two, three or four Pali words are written down, and the translation in Burmese follows; then come again a few other Pali words accompanied also with the translation, and so on throughout the whole work. The art of translating well and correctly from one language into another, is not so common as many persons may imagine. In a good translation

are required many qualifications which are not to be easily met with, particularly in a Burmese to whom we may give credit for knowing well his own tongue, but who without taking away from his literary attainments, is certainly an indifferent Pali scholar. These translations may convey perhaps the general meaning of the original, but as regards the correct meaning of each term, it is a luxury ever denied to the reader of such rude and imperfect compositions.

76. The attentive reader of this work cannot fail to remark the general tendencies of Buddhism to isolation, retirement, and solitudes. In a retired position, man's mind is less distracted or dissipated by exterior objects, it possesses a greater share of self control, and is more fit for the arduous work of attentive reflexion and deep meditation. Whenever Budha attended by his followers reaches a place, where he is to stay for a while, a grove without the city, is invariably selected. Thither the great preacher retires as in a beloved solitude. He enjoys it beyond all that can be said, alone with his spiritual family, unconcerned about the affairs of this world, he breathes at ease the pure atmosphere of a complete calm, his undisturbed soul soars freely in the boundless regions of spiritualism. What he has seen and discovered in his contemplative errands, with a placid countenance and a mild voice, he imparts it to his disciples, endeavouring thereby to make them progress in the way of perfection.

In those solitary abodes of peace, Budha was willing to receive all those who wished for instruction. They were all without distinction of rank or caste admitted in the presence of him who came professedly to point to men the way to happiness by helping them to disentangle themselves from the trammels of passions. He preached to all, the most excellent law. The tendency to retreat and withdrawal from worldly tumult is in our own days conspicuous in the care taken by Buddhist monks to have their houses built in some lonely quarters of a town, assigned exclusively for that special purpose, or as is oftener the case, in fine places at a small distance from the walls. Some of these groves, in the centre whereof rose the peaceful abode of Rahans, the writer has often seen and much admired. In towns or large villages, where the ground is uneven, the small heights are generally crowned with the dwellings of Rahans.

77. The narrative of Budha's reception in his father's royal city suggests reflexions. The first is that the saying: *nemo Propeta in sua patria*, was as true in the days of Gaudama as in subsequent ages. The mountains of Kapilawot had often re-echoed the praises of Budha and the recital of his wonderful doings. The splendid retinue of twenty thousand distinguished converts that attended his person—the hitherto unwitnessed display of miraculous powers &c., all these high qualifications seemed more than sufficient to secure for him a distinguished reception among his kinsmen, who ought to have been proud of being connected with him by the ties of relationship. Such, however, was not the case. Actuated by the lowest feelings of base jealousy, the relatives refused to pay him the respect he was so well entitled to. Their wretched obduracy was to be conquered by the awe and fear his miraculous power inspired.

The second reflexion suggested by the recital of the ceremonies observed on the occasion of Budha's reception in his native country, is the truly pleasing fact of seeing the weaker sex appearing in public, divested of the shackles put upon it by oriental jealousy. In Burmah and Siam, the doctrines of Buddhism have produced a striking and to the lover of true civilization a most interesting result, viz, the almost complete equality of the condition of women with that of men. In those countries women are not miserably confined in the interior of their houses, without the remotest chance of ever appearing in public. They are seen circulating freely in the streets, they preside at the *comptoir*, and hold an almost exclusive possession of the bazars. Their social position is more elevated in every respect than that of the persons of their sex in the regions where Buddhism is not the predominating creed. They may be said to be men's companions and not their slaves. They are active, industrious and by their labors and exertions contribute their full share towards the maintenance of the family. The marital rights are fully acknowledged by a respectful behaviour towards their lords. In spite of all that has been said by superficial observers, I feel convinced that manners are less corrupted in those countries where women enjoy liberty than in those where they are buried alive, by a despotic custom, in the grave of an opprobrious slavery. Buddhism disapproves of polygamy; but it tolerates divorce. In this respect, the habits of the people are of a damnable laxity.

78. Buddhist Monks out of humility and contempt for all worldly things do not allow hairs or beard to grow. They walk barefooted, wearing a yellow dress of the simplest make. They are bound to live on the alms that are freely bestowed upon them. The regulations of the Wini are in this respect most explicit and leave no room for false interpretation. A Rahan having renounced the world and divested himself of all worldly property, is bound by his professional vows to rely for his daily food on what he may obtain by begging. Hence the appellation of Bickus or Mendicants always bestowed on them by Gaudama whenever he addressed them in particular on certain points regarding their profession. In Burmah, as soon as the day begins to dawn, a cloud of yellow dressed Monks sally forth from their abode with the patta under the left arm, and perambulate the streets in quest of food. They never ask for anything, they accept what is voluntarily tendered to them, without uttering a single word of thanks or even looking at their generous benefactors. This action of bestowing alms to the Rahans is deemed a most meritorious one. The offerer, therefore, becomes liberal not on account of the person he is assisting, but because of the abundant merits he hopes to derive from it. This notion agrees very well with the leading tenets of Buddhism.

79. The answer of Budha to his royal father is a most remarkable one and deserves the attention of the observer. The great reformer does away with all the prerogatives man may derive from birth, rank and riches. Law alone can confer titles of true greatness and genuine nobility. The fervent and zealous observers of the law are alone entitled to the respect of their fellowmen. The begging of alms may be in the eyes of worldly a low and mean action, but it becomes a most dignified one because it is enforced by the law. This lofty principle boldly establishes the superiority of virtue upon the strongest basis, and sanctions the moral code he was destined to publish to men and saddle on their conscience. The criterion of all that is good, excellent, praiseworthy and meritorious, is no more to depend on the arbitrary and very often erroneous views of men, but it must rest upon the immutable tenets of the eternal law, discovered, revived and published by the omniscient Budha. This truth like a flash of light illuminated the king's mind and at this first preaching of his son, he attained the first of the four states of perfection.

The Princes Thamadat, Thoudadana boasted to descend from, are, according to Buddhistic sacred books, the Princes who were elected to hold supreme power at the very moment the words *mine* and *thine* began to be heard amongst men, after they had eaten the rice called *Thala tsan*, and become subject to passions.

The Princess Yathandara mentioned in this narrative, had been the wife of Budha, ere he had withdrawn into solitude and renounced the world. A son had just been born to him, when he left his father's palace. His name was Raoula. The doctrine of the influence of merits gathered during former existences, is forcibly illustrated in the case of Yathandara who, unmindful of the position she occupied in former years, did not hesitate to prostrate herself at Budha's feet, acknowledging him to be worthy of all honor and veneration. Her former merits disposed her to view in him, who had been her husband, the extraordinary personage who was to lead men in the path of virtue and happiness.

80. Ananda was Budha's younger brother, the presumptive heir to the crown of Kapilawot. His conversion grieved much the king, who to prevent the recurrence of such an event, exacted from the great reformer that in after times no one could be admitted into the society of the perfect, without having previously obtained the consent of his parents, failing such a condition the act of admission should be considered as null and void. Hence, we read in the book of ordination or admittance to the dignity of Rahan, that the person directed by the President of the Assembly to examine the candidate, never omits to enquire from him, whether he has obtained the consent of his parents.

From the moment of his conversion, Ananda devoted himself to the service of Budha. He never parted from him, but remained to the last his faithful attendant, ever conspicuous for his readiness in ministering to the wants and necessities of Budha. At all times when the latter had to communicate some orders or give directions to the Rahans, or when some visitor desired to wait on him, Ananda was the person who transmitted all orders, or ushered visitors into the presence of the preacher. He was the medium of intercourse between Budha and all those that surrounded him. The conversion of Raoula soon followed that of Ananda. Of this new and distinguished convert no mention is made afterwards in the course of

this work. He must in all likelihood have become a celebrated member of the Assembly, as he was trained up to the functions and duties of his profession by the greatest and most renowned disciples, such as Mankalan, Thariputra and Kathaba.

81. It is impossible to assign the motive that may have induced the compiler of Budha's life, to insert in his work a long episode on the celebrated physician Dzewaka. The story is in itself uninteresting and throws no light whatever on the history of the supposed originator or reformer of Buddhism. For this reason, it has been thought quite unnecessary to give a complete translation of the whole passage. The name of Dzewaka is quite familiar with the adepts of the medical art in Burmah. Many times the writer has made inquiries respecting the works of the Hipocrates of India, but he has never been able to meet with a mention of, or allusion to, such compositions. Hence he has been led to suppose that the father of medicine in these countries has left after him no writings to embody the results of his theoretical and practical favorite pursuits. Surgery appears to have been no novelty to our great Doctor, since we see him on an occasion extracting from the body of a prince, by means of an incision, a snake that put his life in peril.

The numerous quacks, who, in Burmah, assume the name of physicians, and are ever ready to give medicines in all cases, even the most difficult and complicated, are ignorant of the very elements of the Surgical art. They possess a certain number of remedies made up with plants, which, when applied under proper circumstances and in certain cases, work out wonderful cures. But the native physicians, unable in most instances to discern the true symptoms of diseases, give remedies at random, and obtain in too many cases results most fatal to the unfortunate patient. In medicine as well as in religion, ignorance begets superstition, and recourse to magical practices. We may positively assert that the black art is with native practitioners, an essential concomitant to the knowledge of medicine. When a physician has exhausted the limited stock of remedies that he possesses, and he finds in spite of his exertions, that the disease bids defiance to his skill, he gravely tells the relatives of the patient that some evil spirit is interfering with his remedies, and that he must be expelled, ere there could be any chance of relieving the sufferer and obtaining his recovery. Whereupon a shed is erected with the utmost speed on a spot close to the house of the patient. Offerings of rice, fruits and other articles are made to the pretended evil spirit who is supposed to have got hold of the sufferer's body. Dances of the most frantic character are carried on by his relatives, until their strength at last failing them, they drop down in state of complete exhaustion and prostration. They appear to have lost entirely their senses. In that state, they are supposed to have propitiated the evil spirit. Interrogated by the physician on the nature of the disease, and the proper remedies to be applied for eradicating it, they give answers, or rather they become the channels through which the spirit, satisfied with the offerings made in his honor, condescends to declare that he has now left the patient, and that by placing him under a certain treatment that he fails not to indicate, he will soon recover his health. Such like occurrences are exceedingly common. They are called by natives festivals of the *Natpan* or the possessing spirit.

82. The rebuke given by Budha to his disciples who had made without a permission, such a display of miraculous power, though intended for the promotion of his glory, was designed to operate as a salutary check to the pride that might find its way into the heart of even the most privileged beings. Such a lesson was deemed of the greatest importance, since we find in the book of Buddhist ordinations, the sin of boasting of, or pretending to the power of working wonders &c, ranked among the four capital sins excluding a Kahan for ever from the society of the perfect, and depriving him of his rank and dignity. Budha, it seems, wished to reserve to himself alone the honor of working miracles, or to give the permission, when circumstances should require it, to some of his disciples to do the same in his name and for the exaltation of his religion.

The following story of Purana and his five associates, holds a pre-eminent rank among the events that have rendered Budha so celebrated. Gaudama, as it has been already mentioned in some foregoing notes, was an ascetic who had studied philosophy under eminent masters, who belonged to the Brahminical school. In many of his opinions as well as in his mode of life, there was no perceptible difference between him and the followers of the Brahmins. The writings of the latter

as well as those of the earliest Buddhists exhibit to us the sight of a great number of schools where opinions on ontology, morals and dogmas &c, at once various, multifarious and opposite were publicly taught. The human mind left to its own resources, launching forth into the boundless field of speculative philosophy, ran in every direction, searching after truth. The mania for arguing, defining, drawing conclusions &c, in those days, prevailed to an extent scarcely to be credited. Many centuries before Aristotle wrote the rules of dialectics, the Indian philosophers had carried the art of reasoning to a great degree of nicety and shrewdness. Witness the disputes and discussions between the Brahmins, and the immediate disciples of Budha. When our Phra began to attract about his person, crowds of hearers and disciples, when his opinions on the end of man were understood and appreciated; when the system of castes received the first shocks from the new but rapidly progressing doctrine: when the eyes and hearts of the people were slowly at first, and rapidly afterwards, centred on the new preacher and his disciples; when at last, alms that had hitherto flowed in the abodes of the Brahmins, began to enter into new channels and carry their substantial produce to the door of the followers of the new sect, their jealousy and other passions began to agitate the heart of those who had hitherto retained an undisputed sway over the credulity of the people. They tried, if credit be given to the works of Buddhists, every effort, devised every means in order to oppose the progress of the new doctrine.

In this instance Purana and his friends, assisted as the Buddhists pretend by the agency of the evil one, wished to enter into discussion with Budha and to surpass him in the display of miraculous power. The contest was to take place in the country of Thawatee, in the presence of the King and a countless multitude assembled for the purpose. Purana, as usual with Buddhists in regard to those who held opinions different of their own, is styled an heretic. Of the opinions of these enemies of Budha, nothing is said in the present work, but the writer has had the opportunity of perusing another work where a slight allusion is made to these six holders of heterodox doctrines. Their opinions were at variance upon the beginning of this world, the eternity of matter, the existence of the soul, a first principle creator of all that exists. We may infer therefrom that they were heads or chiefs of various schools, who, though not agreeing among themselves upon purely speculative doctrines, united and combined against the common enemy. A detailed account of the doctrines held by these six heretics would prove highly interesting, as it would throw some light on the very obscure and imperfectly known history of Indian philosophy in the days when Buddhism assumed the shape of a religious system. To those who are unacquainted with Indian literature, the great progress made by Hindoos in philosophical sciences at such an early period may appear somewhat doubtful: but modern discoveries made all over the Indian Peninsula leave not the least doubt respecting this startling assertion. At a period when Greece and the other regions of Europe were sunk into a state of complete ignorance, most of the branches of literature were successfully cultivated on the banks of the Ganges. The study of philosophy always supposes a great intellectual advancement. There would, therefore, be no rashness whatever, in asserting that the present state and condition of India, as regards literary progress, are much below the mark that was attained at such a remote period.

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## ETHNOLOGY OF THE INDO-PACIFIC ISLANDS. \*

By J. R. LOGAN:

## LANGUAGE.

## PART II.

THE RACES AND LANGUAGES OF S. E. ASIA CONSIDERED IN  
RELATION TO THOSE OF THE INDO-PACIFIC ISLANDS.CHAPTER V. (*Continued*).

ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIRIAN FORMATION,—EMBRACING NOTICES OF THE FINO-JAPANESE, CAUCASIAN, INDO-EUROPEAN, SEMITICO-AFRICAN, EUSEKARIAN AND AMERICAN LANGUAGES.

Sec. II. GLOSSARIAL INDICATIONS OF THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIRIAN LANGUAGES.

## II. NUMERALS.

As numerals are based on definitives, the principal test of their antiquity in a particular language is their mutual dependence, and their relation to the definitives preserved in pronouns, substantival prefixes or postfixes, directives &c. If their elements are the same that occur in these particles, and if the terms for the higher numbers are connected by composition or flexion with those for the lower, it may be concluded that the numerals are native, that is, belong to the earliest era of the language, or of the formation of which it is a member or derivative. If the different terms have no connection with the other particles of the language, it may be inferred that they are extraneous or of foreign origin; and this inference will be greatly strengthened if there is also an absence of connection amongst the numerals themselves. But, in the latter case, the heterogeneous character may be either that which they had in the single foreign language of their immediate origin, or it may be a consequence of successive displacements of old terms by new ones derived from several influential foreign languages. Tried by this test the Dravirian numerals must be considered as very archaic, and as native in the linguistic formation to which the ancient Indian languages belong. It may be remarked amongst their archaic characters that they are not only qualitative

\* Continued from p. 52.

as in other systems, but the roots are always clothed with a possessive or qualitative postfix, so that the series is literally "one-of," "two-of," "three-of" &c.\*

Rejecting the possessive postfixes, the S. Dravirian roots appear to be 1, *on*, *vo*; 2, *ir*, *er*, *ira*, *era*, *re*, *ra* (euphonically *ren* &c.); 3, *mu*; 4, *na*; 5, *ai*, (euphonically *ain*, *an*, &c.); 6, *a*; 7, *e*; 8 (2, 10); 9 (1, 10). If *-du*, *-zhu*, *-ju*, *-ndu*, *-nju* &c., *-ru*, *-lu*, *-nu*, *-tu*, *-da*, *-zha*, *-ta*, *-la*, *-ar*, *-di*, *-ji*, *-ti*, *-de*, *-d* &c. are all merely flexional variations of the possessive postfix, as is evidently the case the root of 5 is *ai*, and not *ain*, *an* or *anj*. If this view of the basis of the Dravirian numerals be correct, it follows that it was originally formed from a few definitives, further distinctness having ultimately been attained in each term by slight variations or flexions both in the roots and in the common postfixal possessives, variations similar to what take place in all agglutinative and flexional languages. Thus in Tamil the postfix takes the forms *-ru*, 1, 3, 6; *-du*, 2, 9; *-lu*, 4; *-ju*, 5; *-zhu*, 7; *-tu*, 8; *-ta*, 9;—in Malayalam *-na*, 1; *-da*, 2, 9; *-ar*, 3; *-ra*, 6; *-la*, 4; *-ja*, 5; *-zha*, 7; *-ta*, 8, 10;—in Tuluva *-ji*, 1, 5, 6; *-d*, 2; *-lu*, 4; *-l*, 7; *-nu*, 5; *-tu*, 10;—in Karnat. *-du* 1, 2, 5; *-ru*, 3, 6; *-l*, 4; *-lu*, 7; *-tu*, 8, 9, 10;—in Telugu, *-ti*, 1; *-du*, 2, 3, 5, 7; *-lu*, 4; *-ru*, 6; *-di*, 8, 9, 10;—in Todava, *-da*, 1, 2; *-du*, 3; *-n*, 4; *-j*, 5; *-ra*, 6; *-ta*, *-t*, 8, 9, 10. From the easy convertibility of most of these forms, any original regularity in their flexion—if such ever existed—was not likely to be preserved. But some of the languages maintain a manifest connection between 1 and 6, and between 8, 9 and 10, the former being probably dependent on an archaic quinary scale, while the latter intimates that when the scale became decimal, the lower numbers in the vicinity of 10 were named with reference to it.

From the general character of the variations in the forms of the

\* See Appendix A. Comparative Vocabulary of the Numerals of the Dravirian Formation. The following are examples of the terms.

*Dravirian proper.*

1. *on-ru*
2. *era-du*
3. *mu-du*
4. *na-tu*
5. *ayi-du*
6. *a-ru*
7. *e-du*
8. *en-tu*
9. *on-ba-du*
10. *pa-tu*

*Kol.*

1. *m-ia*
2. *bar-ia*
3. *op-ia*
4. *pon-ia*
5. *mor-ia*
6. *tur-ia*
7. *e-ia*
8. *irl-ia*
9. *ar-ea*
10. *gel-ea*

postfixes and the faintness of any traces of real flexion, it is probable that none of them had ever any function but the simple possessive. They are similar to the ordinary variations of the possessive, the consonant being *d, t, r, l, n, j, zh, nd, nt, nr*, and the vowel *u* generally, but sometimes *a* (Malayalam), *ori* (Tuluva). [See the remarks on the final vowels affected by different dialects]. The only other particle found amongst the postfixes is the guttural. It occurs in 4 in Anc. Tanil *nan-gu*, Telugu *nalu-gu*, Karnataka *nal-ku*, Toda *non-k*, Uraon *na-kh*. It appears also to have been an archaic postfix of a labial term for "one" preserved in Kol but now lost in all the southern dialects save Toda and Telugu, although keeping its place in 10 and higher numbers as well as in 3. In the Telugu *vo-ka-ti*, the original poss. *ka* of the term *voka* appears to have become concreted and the secondary possessive *-ti* (the form in the Gond *un-di*) to have then been appended, as in the Brahui *mu-si-t*, 4; and Kol *m-ia-d*, 1. In Telugu the *-ka* of *vo-ka-ti* is lost, the dental only being preserved in the sonant form (*pa-di* 10, in *iru-va-i* 20, *mu-pa-i* 30 &c the *d* is dropped). The other dialects, with one exception, have also lost the guttural. The exception is Ancient Tamil which has *on-ba-ku-du* 9, i. e. "one (from) ten," *oru-pa-ku-du* 10 "one-ten," *iru-pa-ku-du* 20 (2, 10) &c. In some vocabularies of Toda it occurs in 5 *yajj-khu*, *khu*. It appears to be the definitive found in the dative (*-ku*, *-aku*, *-nka*, *-hi*, *-ge* &c.) and in the compound possessive and dative *-yo-ka*, *-yo-k*. The additional postfixes in Uraon, Gond, Male (1) and Brahui appear to be attributable to these languages having left the home circle of the Dravirian family. Gond has even a prefix in 5 and 6 (*s-ai-jhan* 5, *sa-rong* 6).

The mutual connection of the roots themselves is somewhat obscure. 1, 2 and 3 appear to be distinct roots. 1, *on*, (*no*, *o*, in the Toda 11, *nu* in most of the dialects in 100, but *on* in Toda) is definitive in Dravirian as in many other languages, in several of which it is also used as the unit, "the," "this," "he," "it" &c. for "one," "a". In South Dravirian it occurs as a demonstrative, generally in the curt form *a* (followed by definitive postfixes marking the gender). Tuluva has *ayi*, Khond *yan*, and the Kol dialects *ini*, *uni* "he" &c., *nea*, *noa*, *nia*, *ni*, "this," *eno*, *ana*, *hono*, "that." Tuluva has also *in-chi* "here," *an-chi* "there."



It is found in some Ultraindian and many Asonesian languages as a definitive, demonstrative and unit. The South Dravirian on, 1, appears to be one of the two principal definitives, demonstratives, and 3rd pronouns of the formation.

The second, and in South Dravirian—as in Sifan, Gangetico-Ultraindian and Australian—more prevalent, 3rd pronoun &c., the labial, is also used in S. Dravirian as the unit. It is a common definitive postfix, as well as 3rd pronoun. In the exceptional *vo-dda* Toda, *vo-ka-ti* Telugu, 1, *vo* is evidently the root and *da*, *ka* and *ti* possessive postfixes. The antiquity of the term is proved by its having kept its place in 10 and the higher numbers. The Telugu guntural, as we have seen, is preserved in the Ancient Tamil 10, *ba-ku-du* (in 9 and 50), *pa-ku-du* (in 10, 20 &c). In 10, 20 &c. the labial root takes the forms *ba*, *pa*, *va*, in Mal.; *ba*, *pa*, *va*, and *mi* in Telugu; *bha*, *ha*, and *va*, in Karnataka; and *bo*, *po*, *vo*, *pe* in Toda. In the Malayalam, Telugu and Karnataka 9, on, 1, becomes *om*, which assimilates it to *vo*, but the assimilation appears to be phonetic merely. In the term for 100 Telugu preserves the labial, *va-nda*. With reference to the variation of the vowel from *a* to *o*, it may be remarked that in the 3rd pronoun the southern languages have *va*, *av*, *am*, &c. while Gond has *wu-r*, and that *o*, *u*, are found in Newar *wo*, and Abor *bu*. On the other hand Gyarung, Dhimal, Garo and Tung-lhu have *wa* and *Dophla ma*, while Takpa has *pe* and Bodo *bi*. In S. Dravirian the postfixed labial definitive has various forms, *bu*, *bo*, *ba*, *va*, *vo*, *vu*, *pa*, *po*, *pu*, *ma*, *mo*, *mu*, *um*, *am*, &c., the vowel having little stability.

The other 3rd pronoun of the Dravirian formation,—as *an* Uraon, *ath* Male, (*asa-bar* in pl., *ahi-ki* in poss., *ih* “this,” *ah* “that”), *it*, *id*, *adi*, *athu* &c. S. Dravirian,—does not occur as the unit in any of the Dravirian or Kol numerals, but the Brahui *as-it* has it. That *as* is the root and that it is Dravirian appears not only from the postfix, but from 2 and 3 also being Dravirian (*ira-t*, *mu-s-it*). The absence of the sibilant as a Draviro-Australian unit is one of the most striking peculiarities of the system.

*Ra*, *e-ra*, *yer*, *i-ru*, *ir*, *re*, *en* &c. 2, is one of the variations of the common def. *da*, *la*, *na*, &c. of which *n*, *na*, has pronominally been restricted to the masculine gender, and *la*, *l*, to the feminine. *Ra*

(variable to *la*, *le*, &c.) is the plural form, and it may be derived from 2, or *vice versa*. In 8 (2, 10), the root for 2 has the forms *e*, *ye*, in Tam., Mal., Tod., *en*, *yen* in the other dialects, as in the Uraon 2 (*en-otan*). In 12 it is *er*, *ira*, *ra* and *e* or *ne*. In 20 it is *iru*, *ir*, *iri* (in Toda *ye*, *e*, *i*, and in Karnataka *i*).

The root for 3, *mu*, corresponds with the labial definitive, with the pronominal plural element, and with the labial root for 1, thus giving indication of a primary binary scale in which the term for 3 returned to the root for 1, (2, 1). In higher numbers (13, 30 &c.) it generally retains the form *mu*. In Dr Stevenson's Karnataka list 13 is *had-im-b-ru*, in which *b* represents *mu* and labialises the *n* of the conjunctive *-in*.

The root for 4, *nal*, *nar*, *non*, (if we include the final of the first syllable of the term), appears to be a repetition and reduplication of *ra* 2 (i. e. 2 dual, as in many other languages). In 14 it is *nal*, *n* or *an* (*pa-n-ka*, *pat-in-an-ku*). In 40 it is *nar*, *nal*. It is probable that the *h* postfix was adopted instead of that in *n*, *l*, *d*, &c. to distinguish it from the root. This is supported by the fact that in the higher numbers the other numerals lose the possessive postfix, while 4 loses *hu* *h* only and retains *l*, *r*. The closest foreign terms for 4 have a final *l*, *n*, &c. (*nila*, *nol*, *nan* &c.)

The higher roots present little that is tangible. But there is evidently a connection between these very elliptic and undefined higher roots and the two first of the lower series, 1, 2, 3. 5 is *ain*, *yan*, *an*, or *ai*, *ya*, *ayi*, *ei*. As the higher as well as the lower numbers are formed from three elements, *on* &c., *mu* &c., and *ir*, *er*, &c., it is not probable that *ai*, &c., involves any fresh root. As *i*, *e*, is only found in the root for 2, and represents it in some other terms, it may do so here also. In the Toda *er-bod*, 50, 5 is represented by *er* 2. The term in Toda at least, was therefore 3, 2, (as in Kol), and as the *a* of *ai* can hardly be a remnant of the term for 3 (unless *muna-iradu* was the primary form and not *munru-iradu*, which is improbable), we must explain *ai*, *ei*, as a phonetic variation of *e*, if we consider it as 3, 2. In some forms *a*, *ya*, represent the *e* or *i*, and in 6 it is also represented by *a*. There is another and—despite the Uraon and Kol terms—more probable explanation of the S. Dravirian 5. In many quinary systems the term for 5 is the root for 1, or a merely phonetic variety of it, on the same

principle that 10 is named 1 in many denary systems. 5 was "*one tale*," counted on the fingers of one hand, as 10 was "*one tale*," reckoned on the fingers of both hands. One of the forms of the Dravirian definitive, demonstrative and 3rd pronoun which is used as 1 in the term on, nu &c. is yan, ayi, aye, ai &c. This would appear to be the root of 5 in the South Dravirian dialects. (Comp. Tuluva aye "he" &c., ayi-no "this," ayi-nu, 5). A, o, 6, is still more elliptic than the ai of 5, and like it has the form of a mere definitive. The Toda form, o, is identified with on, 1, in 11, and the term would thus appear to have been a quinary one, 5, 1. In the Appendix, although considering it probable that the root is a, I have referred it to ira, era, 2, the a appearing to point to it rather than to on &c. 1. But the Toda o-r, 6, has the proper vowel of 1, and it occurs in the same form in 11. The Tuluva and Gond a-ji, 6, has the postfix of 1 (on-ji T., on-di G.) and not of 2 (-du T., -nu G.) The -ra of the Mal. 6 corresponds with the -na of 1, and not with the -du or -ndu of 2. (The postfixes of the other dialects are the same, or nearly so, in 1 and 2). The term for 6 would thus appear to have been a quinary one, 5, 1, the word for 5 having been disused for brevity's sake. In many other formations a quinary system appears superimposed on a binary and ternary one or on a compound of both, and it is only in the crudest glossaries that the term for 5 is retained in the higher numbers. The root of the Dravirian 6 is thus merely a variety of that for 1.

The e, ye, of 7 has the same character. It can only be referred to the e, ye, of 2 (5, 2). In 8, e, en, again occurs as the representative of 2, and the formation of this term as 2, 10 and of 9 as 1, 10, clearly indicates that the denary scale was superimposed on an older and more limited one, probably quinary as far as it went, 1; 2; 3; 4; 5; 1, 5; 2, 5. There would also appear to have been a quinary 8 (i. e. 5, 3). In the Appendix the Gond form, ana-mu-r, is omitted. It resembles the Tuluva ename and the Telugu en-imi-di. In all these forms the labial unit of 10 has neither the form v as in 1 of Telugu and Todava, nor that of v, p, b, as in 10 and the higher numbers in all the dialects. It preserves the m of the Kol 1 and of the Dravirian 3. The Gond 10 has the form pa-da of Malayalam, while 1 has the form

*un-ddi* (on-ji Tuluva). The Gond *mu-r* of 8 appears to show that; when the term for 8 was formed, *mu-r* or *mu-ru* was the current form of that for 1. But for the *e*, *en* prefix in all the terms for 8 save the Gond, *mu-r* would be referable at once to *mu-ru* 3 (Karnataka; *mu-nu* Gond). In the same way the Telugu *mi-di* and Tuluva *me* would be referable to a slender form of 3 which is actually current in Todava, *mi-z*. The term for 8 would thus be quinary (5, 3) like 7 and 6. The Gond *an* of *ana-mu-r* is the *an* of the Tamil and Malayalam 5 (*an-ju*, *an-ja*), so that there seems to be no room for doubt as to its true quinary character. The *e* of the other terms appears to be as clearly referable to 2. The Telugu *mi-di* recurs in 9 (*t-om-mi-di*), where it must represent 1. The forms of 8 and 9 appear to carry us back to the period when the labial kept its place in 1 as well as 3, and had the *m* form in 1 also. The Todava *bo-d* is a near approach to *mo-do*, *mu-du*, *mu-ru*.

The quinary system, in its turn, would appear to have rested on a primitive binary and ternary one; and the series of terms as we now find it has the following sequence of root elements:—1, and also I (two roots), *one*; 2, *two*; I (for 2, 1), *three*; 2, 2, *four*; 2 (for 3, 2), *five*; 1 (for 5, 1), *six*; (2 for 5, 2), *seven*; 5, 3, also 2, 10, or 2, *eight*; 1, 10, *nine*; I, *ten*. To those comparative philologists who have not analysed and compared a large number of numeral systems, this reduction of the Dravirian to three roots (two primary terms 1 or I, and 2), combined by binary, ternary, quinary and denary methods, may appear exceptional and fanciful, but the fact is that nearly all numeral systems have been built up in the same mode by a succession of steps. The Iranian, the Semitic, and most of the other Asiatic systems, as well as the allied African, Malagasy and Malagasy-Polynesian, have had a similar history, and under their present denary form preserve vestiges of the earlier modes of counting and forming the names. A large number of African and some Ultraindian and Asonesian systems still retain the quinary terms from 5 to 10 undisguised, and entirely or nearly identical with those for 1, 2, 3 and 4. In most systems 10 is either 1, or 1 followed or preceded by another word. Various illustrations of these facts are given in the Semitic-African sub-section, and they are more fully considered in a separate paper on the numeral systems of the Old World.

The first direction which our search for facts that may help to clear up the obscurities of the South Dravirian system, should naturally take, is to the Kol, Gangetico-Ultraiadian and Asonesian systems. There has evidently been some displacement and phonetic modification of roots in the S. Dravirian system, and in some points the correctness of our analysis cannot be considered as fully established by that amount of mutual elucidation which the S. Dravirian dialects themselves afford.

The Kol dialects preserve a somewhat different numeral system. It appears to have prevailed in Ultraiadia also prior to the introduction of the Tibetan and Sifan modification of the Chinese, for it is now retained—partially blended with the latter—in those Ultraiadian languages which in pronouns and other words, have the strongest glossarial affinities to Kol.\* A full list of the variations which the roots undergo, with some remarks on their distribution and the probable course of their diffusion, will be found in the next chapter.

The Vindyan, like the South Dravirian, numerals postfix a possessive definitive, but in place of varying in different terms as it does, to a greater or less extent, in South Dravirian, it is uniformly *-ia* or *-ya* (with a few slight phonetic changes and contractions

\* The maritime position and habits of the Mon or Peguans, the evidences of their having been at one time the chief traders to the eastward on the Bay of Bengal, and of their having greatly influenced the other Ultraiadian, the Peninsular and several of the Indonesian races, with the undoubted spread of Vindya-Ultraiadian vocables through their instrumentality to the east and south, led me to surmise that the words common to the Mon-Anam and the Kol vocabularies, had been carried by the Mons from Ultraiadia to the Gangetic basin, rather than by an inland tribe like the Kols to Ultraiadia, and this surmise appeared to be strengthened by the peculiarities of Kol compared with South Dravirian. The 2nd pronoun in particular, with the lower terms of the numeral system, appeared to have a character completely foreign. Amongst the miscellaneous words common to Kol and Mon-Anam vocabularies some were, beyond all doubt, non-Dravirian and of Ultraiadian and Tibeto-Ultraiadian origin. In the Introductory Note to Part II (*ante* vol. vi, p. 658) I therefore remarked that the vocables of the Mon-Anam formation were not only found in Gangetico-Ultraiadian languages, "but to a remarkable extent in the Kol dialects, proving that the Pegu formation embraced Lower Bengal and a portion of the Vindyas, although the Dravirian basis was preserved in the languages of the latter"; and in Sec. 6 (vol. vii, p. 200) it is said "the phonetic basis of the language [Kol] and many particles and words are Dravirian, but the pronouns, several of the numerals and a large portion of the words are Mon-Anam." At the same time, the influence of the Dravirian pronominal system in Ultraiadia was in several places remarked. A more minute examination of the pronominal and numeral elements of Dravirian, of the foreign continental affinities of the formation, and of its remnants in Asonesia, with the reference of the Kol 2nd pronoun like the 1st to Dravirian, have satisfied me that while the Kol, owing to its position, has been influenced by the Tibeto-Chinese formations, as the race itself has by the Tibeto-Ultraiadian, the affinities between it and the Mon-Anam vocabularies are mainly of primary Kol origin. The most probable conclusion is that the Kols are

—as *-ea*, *-e*, *-i*). This postfix is clearly Dravirian glossarially and idiomatically.\* It is not found in the Ultraindian systems, save in some varieties of the common terms which have a great appearance of being contractions of the Kol full forms, and thus support the opinion that the latter were the original. The system is based on definitives or demonstratives like the Dravirian and all the other archaic Aso-African systems, and as the same definitives were common to most of the archaic formations, the Kol terms, like the S. Dravirian, present many resemblances to foreign numerals. These will be found in Appendix A to the next chapter. In this place I will enquire how far the Kol terms are related to the South Dravirian.

The root for 1 is *mo*, which contracts to *m* by the elision of the vowel before the vowel of the postfix (*mo-i*, *m-ia*, *m-ea*, *m-ia-d*, *m-i-dh*,† *m-i*). The Ultraindian and Peninsular forms preserve the labial vowel (*o*, *u*), and in some cases remnants of the Kol postfixes; *po* Angami Naga, *bo* Karen, *muo*, *ma-i* Mon, *mo-e* Kambojan, *Ka*, Chong, *mo-t* Anam, *mu-i* Binua. The root, as we have seen, is preserved with the labials *m*, *b*, *v*, *p*, and with the

a remnant of the modified south Gangetic or Bengal division of the ancient Dravirian race. Their dialectic peculiarities of a secondary kind must have been of much later origin than the first spread of Dravirian to the eastward, for the early forms of the pronouns found in Australia are the pure Dravirian. The numerals cannot be explained as a mere dialectic variation of the South Dravirian,—but it is to be remarked that the South Dravirian developed numeral system itself has no claim to stand on the same archaic footing as the pronouns. The quinary system was not in existence when the formation first spread with its proper pronouns, into Asonesia. The general character of Kol shows that the language must have existed as a separate one from a very remote period. There must have been at least two great and independent Dravirian nations or races, the southern, now represented by the Gond-Tamil peoples and languages, and the Gangetic or Bengal, now represented by Kol. The possession by the latter of a somewhat peculiar numeral system, although a sufficiently remarkable circumstance, is by no means anomalous, especially if the race occupied the lower Ganges and were a maritime and trading people. The more marked deviations of Kol from the homogeneity of the Dravirian system of pronouns and numerals appear to be referable to the ethnic revolution occasioned in the Gangetic basin by the entrance of the Chino-Ultraindian and Chino-Tibetan race.

\* In South Dravirian it occurs under the forms *-ya* or *-ia*, *-iya*, *yo-a*, *-y* or *-i*. The fact of the Kol dialects taking one of the common Dravirian possessives in their numerals and the southern group taking another, is one of those which establish an archaic separation of the two branches. Both systems go back to a period prior to the concretion of the possessives with the numeral roots.

† The superadded dental (*-d*, *-dh*) appears to be the Kol possessive *-t*, and its presence implies that the other possessive *-ia*, *-i* had become concreted with the root. It is remarkable that the Brahui term for 3 has a similar secondary dental, *mu-si-t* (*mu-si* being obviously a variation of the Dravirian *mu-ji* Tul.) The Telugu *vo-ka-ti*, has also a secondary *-ti*. The exceptional Kol *-d*, *-dh* probably indicates the influence of a S. Dravirian dialect. The Anam *mo-t* preserves the Kol postfix.

same vowels o, u, in Dravirian proper, vo keeping its place as the unit in Toda and Telugu, and appearing in all the dialects with other forms in 10 and 3, in the latter being identical with the Kol-Ultrairindian mu.

2 is bar (*bar-ia*, *bar-ea*). It is preserved in the Ka and Chong bar; the Binua mar, *ha-mar*; and in the contracted Mon ba, Binua ma, Kasia ar, Kambojan *p-ia* (unless this be a misapplication of the Kol 3); be (or *b-e*) Sîmang, hei (or *he-i*) Anam. The term has N. E. Asian and African affinities. The *r* element corresponds with the S. Dravirian 2, *ira* &c, (*ara* in some forms of 6). The *b* may be the *m* of 1 repeated, as in the binary basis of some other systems, but it may, with much greater probability, be identified with the *v* of *avar*, *avara*, *avaru*, *varu*, "they" (i.e. the 3rd pronoun followed by the plural definitive, which is glossarially the same as the dual numeral definitive). The Male bar, (also war, ber) found as the plural postfix in the 3rd pronoun, gives us the exact form of the Kol term for "two". It may thus have been originally the dual or plural form of the labial definitive which forms the unit, the first two terms of the numeral series being equivalent to "this", and "this *dual*," or "this *plural*," i.e. "these". But the idea of duality or plurality may have become attached to the definitive from its use as 2, in which case the application of bar or ar as a plural definitive would be secondary. The Kol dual postfix -ing, -ng, -n, appears to be a variation of *ir*, *er* &c. 2, similar to the Uraon *en*, but preserving *i* as in several of the S. Dravirian forms.

3 is op, contracting to p (*op-ia*, *p-ia*). In Ultrairindia it becomes *pu-i*, *pa-i* Mon, *ba-i* Kambojan, *ba* Anam, *wu-i-p* Sîmang (inversion of *pu-i*), *p-eh* Ka, Chong, *am-p-i*, *am-p-e*, *am-p-et* Binua. The term is a modification of the labial unit of Dravirian and Kol; and the Dravirian 3, *mu*, *mi*, has the same root.

4 is *upun*, *opun*, *pan*, *pn*, in Ultrairindia *pun*, *bun*, *puan* &c, probably a variation of the labio-liquid 2, which occurs with similar variations in other formations, *bar*, *bur*, *pun* &c. This explanation appears preferable to the analysis *op-un*, *up-un*, *p-on*, that is, the term for 3 followed by a definitive representing 1, identical with the S. Dravirian *on*, *un*, 1. The Kol term is different from the South Dravirian.

5 is mona, mone, moi, mo, muna, mun. It is confined to the Kol and Gond, the Ultraindian terms being different. The first element of the term mo, mu, has the form of the labial unit found in the Kol and S. Dravirian 3. The second element na, ne, n, r, may be the South Dravirian 2, ra, r, er, ren, na, l &c (in 2, 4 &c) or 1, (as in 3), or a mere postfix or final. The term may thus be simply a unit, mo, as in the S. Dravirian system, with a consonantal final, as in 2 and 3, or a postfixed definitive, as in the S. Dravirian 3, mu-ru &c, to distinguish it from the mo of 1, (comp. the Ho mo-ya or mo-ia 5, and the Bhumij mo-y or mo-i 1); or it may be 3, 2, or 4, 1. The analogy of South Dravirian gives some special weight to the first suggestion, and the foreign affinities shew that it is well founded. It results that mun is only a variation of the same definitive that forms 4, 3 and 2, and of which 1 itself is probably a contraction.

6, tur, turu appears to be of undoubted Ultraindian origin [see App. A to Chap. VI].

The remaining terms are clearly Dravirian. They have no Ultraindian affinities.

7. The Kol term like the S. Dravirian appears to be quinary. The Sonthal iair is evidently the full form and the others contractions, the iya, aya, ia and cia representing the ayi, ya &c. of the S. Dravirian 5, and the final -ir, -r, the r of 2, so that ia-ir or ya-ir is still 5, 2.

8 is ir-al, ir-l-ia (in Gond, by inversion, ilh-ar, el-ar-ia). The ir is the S. Dravirian 2, corresponding with e of the S. Dravirian 8. The South Dravirian na-l or n-al 4 is 2 dual. The Kol ir-al is in form dual and may have been the second 4, but it is more probable, from the analogy of S. Dravirian, that the element 2 has reference to 10 and not to 4, that is, the full term was "2 from 10" as in some of the S. Dravirian names. The final il, l, al, may represent 10, for the Kol 10 has the same final.

9 ar, ara (ar-ea, ar-e, ara-iah) has an external resemblance to the S. Drav. 6, ara Mal. (aru, aji &c.), but as there is nothing to shew that the term is trinal, and as the adoption of the Malayalam postfix -ra as part of the root would make the term of much later origin than the other Kol numerals, which must have been formed before the S. Drav. postfixes cohered with the roots, it may be inferred that the only common particle is the initial a, represent-



ing 1. The Kol a-ra would thus appear to be 1 from 10 like the Dravirian term, and, if so, ra, r probably represents 10, as al, il, l, does in the term for 8. The form of the postfix in 1, *ea*, corresponds with that in 10, whereas in the other numerals it is generally *-ia*.

10, *gel-ea* (in a Gond dialect *gil, gul*), is a peculiar term. The guttural is not found in any of the preceding numerals. It may possibly be related to the plural *ko* "these," and, if so, the dual king [= *ko* + *ing*] is a similar example of the *o* coalescing with the *i* of the dual. In fact *g-il* or *g-el* and *k-ing* or *k-in* (for *n* replaces *ng* in some forms) would thus be varieties of the same combination. If *gel, gil* be an integral substantive root it has no affinities in the S. Dravirian or Kol numeral systems. The Tamil *kodi* 20 is a different term, nor has it any relation to the Gurung *kuti* "one score", Gyarung *kati* "one" Magar, Lepcha *kut* "one", Nagaung Naga *katang* "one", Tengsa Naga *khātu*, in all which the guttural is a prefixal def.

The Australian and some other pre-Malagasy systems of Asonesia are more archaic than the Dravirian, for they have not yet raised a quinary or denary superstructure on the binary foundation. Some have only the two primary terms for 1 and 2, which are repeated for higher numbers. Others have a term for 3. Some use plural particles and words in combination with the term for 2, 3, or to express higher indefinite numbers. The more common binary roots have Dravirian affinities.

1. The labial occurs in *li-mboto* Goront. *ri-moi* Ternati, *ipeh Bruner I.*, *mo-tu, i-mu-ta* N. Aust., *peer Peel Riv.*, *mal Karaula*, and in the Australian compound terms *ngun-bai, war-at, dom-bar-t, ka-marah, wara-pune, wo-kul, wa-kol* &c.

The labial is the Dravirian unit, definitive and 3rd pronoun, and in Australian it is also common as a 3rd pronoun, and in some languages as a definitive postfix. The final *l, r* of several of the Australian varieties—pronominal as well as numeral—appears to be the liquid terminal and postfix which is so common in Australian languages and is also a Dravirian and Scythic trait. West Australian has *bal* "he," "it" &c. In the *Karaula mal*, the definitive appears in the same form as the unit, and the *Bijnelumbo war-at, Peel Riv. peer, Kowrarega wara-pune, Moreton Bay ka-marah* are similar instances.

The Dravirian nasal definitive and 3rd pronoun is also Australian, and in some languages it is the unit. Thus *niu*, *ngi*, *no*, are forms of the 3rd pronoun in Kamilarai (phonetically varied by the sexual and directive postfixes), and *ngin*, *guin*, *nga*, are forms of the same root in Wiradurei, the former language possessing also the labial 3rd pronoun, in fem., dual and plural forms. In the Wiradurei *ngun-bai*, *1*, *ngun* is the nasal 3rd pronoun, and, what is interesting to remark in reference to the possessive form of the Dravirian numerals, it is not the nominative *guin* or *ngin* but the poss. *gung*. The second element of the compound, *bai*, is probably a contraction of the labial def. which appears in the form *bari* in the 3rd person of the imperative. *Ba*, *wa*, *bala* are also used as the assertive absolute. In Kowrarega as in Wiradurei the nasal def. is found in some forms of the 3rd pron. and the labial in others; *nu-du* "he," *na-du* "she," *pa-le* "they-two".

The Car Nicobar *heng*, *hean*, Simang *ne*, Borneon *nih*, *indi*, *unii*, *enah*, Philippine *una*, *ona*, *uon*, *enot*, Millejuan, New Caledonian *nai*, *nait*, Erub *ne-tat*, may be Draviro-Australian, but it is also explainable as a common insular definitive (identical with the Dravirian) applied to the expression of the unit.

The liquid definitive found as a postfix in Dravirian as in Scythic, does not appear to occur in the known Australian languages as the 3rd pronoun, unless it be identical with the nasal. In many of these languages *l*, *r* is a dual and *n* a plural postfix in pronouns. In some vocabularies *l*, *r* occurs as the unit,—*lua* Gnurellean, (whence youa Pinegorine), *loca* Raffles Bay, *roka* Terrutong. But these terms may be contractions of *ngoro*, *ngolo*, *kolo* &c, with the *-ka* post. The Raffles Bay 3, *oro-ngarie* (1, 2) suggests that *lo-ka*, 1, was *ngoro* (as in the Kamilarain *goro* 3, *wa-kol* 1), and *ori-ka* 2, *ngori-ka*.

The guttural occurs as an Australian numeral element both in 1 and higher numbers, but it is doubtful if any of the forms are referable to a guttural definitive. The naso-guttural 3rd pronoun of Wiradurei, *ngin*, takes the form *guin*, and, as the unit, *ngun*, *ngung*,—apparently identical with the possessive *gung*. The West Australian *gyn*, *keyen*, 1, resemble it, and the terms in other languages that have *ng*, *g* and *k* may be also variations of the same root. The Kamilarai *ngoro* (in 3) and *kol* (in 1) appear

to be merely variations of the Wiradurei ngun, gun. As 3 is 2, 1, or 1, 2, ngoro probably represents 1 (the term for 2 having been dropped) and is identical with the kol of 1. This is confirmed by the Wollondilly 3, in which kol appears (koll-uer) and the Karaula 3 (kul-eba). The Perth *g-udjal*, 2, (gyn 1) is formed from the 3d. pronoun in g or ng precisely as the S. Australian *p-urula* 2 is from the labial 3rd pron. Kul, gal, kar, gar, gur, ngar, ngor are found as terms for 1 or representing it in higher numbers in different languages. In Kamilarai gala, gira, are used for the assertive absolute as well as the labial definitive. The guttural without the liquid postfix is found as an element in several systems, Raffles Bay, *loka* 1, *oriha* 2, Corio *koi-moil* 1, Moreton Bay *ka-marrah* 1 (the same compound), Jhongworong *ka-p*, 1, (probably a contraction of a similar term) 1. The Encounter Bay *ki-tye* "he" &c. appears to be another instance of the full gutturalising of the ngi preserved in Wiradurei, and analogous to the Perth *gyn* which also retains the slender vowel. The Encounter Bay dual *kengk* appears to be a reduplication (the 1st and 2nd pronouns take dual postfixes *-le*, *-urle*). The plural *k-ar* has the proper dual form. The Australian guttural unit explains the Kol 10 (gel, gil, gul).

2. The E. Australian *bula*, *bul-ea*, *bulo-ara*, *pul-ar*, and the Northern *la-wit-bari* appear to have the Kol *bar*, *bar-ia*, *bar-ea* &c. The Mairasi *a-mui*, Bruner I. *la-mui*, have a singular resemblance to the Kol *moi*, Binua *mui* 1., They are varieties of the root found in Menado *bua*, Tidore *ma-lo-fong*; bu-lango Goront., *pahi-wo* Louis., *bo* Hunia, *biui* Tupua, *iu* Gallia. In Australian the term appears, in some cases at least, to be the *dual* of the labial 3rd pronoun and demonstrative. For example, in South Australian *pa* is "he" &c., identical with the Dravirian *va*, (*ba*, *pa* &c.), and *la*, *dla*, *dli*, *rla*, *urla* &c are forms of the dual postfix. The dual of *pa* is *purla* [i. e. *pa-urle*]. The dual of the demonstrative *ia* (Drav.) is a double forms *i-dl-urle*. In the possessive of the 2nd pronoun the dual is also compound *ni-na* "thou," *ni-wa* "you-two," *n-a* "you," *ni-wa-dlu-ko* "you-two-two-of." In several languages the numeral "two" and the dual postfix is a compound similar to the S. Aust. *p-urle*, "it-two," (i. e. "they-two"). The Kamilarai *buloara* and Peel Riv. *pu-lar* are double forms like

it, and the Wiradurei *bula*, Moreton B. *punlah* are single forms. In some cases the double form may be apparent only, for a final *l*, is found in the singular in some languages, as we have above remarked. West Australian has *bal* "he &c," *baläl* "he-himself" *bula* "they-two" general, i. e. friends, brothers and sisters, *buläla* if parent and child or uncle and nephew or niece, *bulen*, husband and wife. The reduplication of the dual also forms a plural *bula-lel* "they," but the substantival plural or collective postfix is also used in the form *bal-gun*, "they."

The use of a third pronoun dual to denote the dual of substantives, as well as of the 1st and 2nd pronouns, is not an exceptional trait in Australian ideology, for the plural of substantives is also frequently expressed by a 3rd pronoun in the plural. Thus the dual of "dog" would be "dog he-two" or "the-two," i. e. "these two," and the plural "dog he-many," or "the many" i. e. "these." The Kol idiom is so far different that the dual is in form a limitation of the plural, *sita ko* "dog these," *sita k-ing* "dog these-two."

The affinity of the Kol *bar* and Australian *bula* is complete in both elements glossarially, as well as in the compound being similar to the dual or plural of the 3rd pronoun. In the most archaic condition of the system the dual and plural power may have been transferred from the numeral to the pronominal use of the definitive.

3. The same element recurs in the Australian *purla*, *murü*, *burui*, *warh-rang*, *mar-din*, *mur-ten*, *mu-dyan*, *ma-dan*, 3, which resemble the Dravirian *murü*, *munru*, *mudu*, &c. The Australian terms are 2, 1, generally fully preserved, but in a few cases with the 2 or the 1 elided. Thus some of the above terms appear to have the root for 1. *Mar-din*, *ma-dan* &c is the labial unit (*mal Ka-raula*), with a nasal postfix as in the Bijne-lumbo *war-at*, and the contracted Wollondilly *me-dung* (*dung* for *du*, the common def. postfix), Limbu *Apiu mo-tu*. But without additional vocabularies both of definitives and their numeral and other applications it seems hardly possible to analyse these terms with precision, for the labial enters into both 1 and 2. The nasal final in *din*, *dan*, may possibly be the common Australian plural postfix. In the Kowrarega *ta-na* "these," "they," it appears with the dental definitive as the 3rd pronoun.

4. The Australian terms are binary (2, 2) like South Dravirian, but in general with little or no agglutination.

5. The Mairasi iworo may be connected with the Vindyan mor.

10. The Pagai putu, Totong *mo*-put, Keh wut &c. resemble the S. Dravirian patu, pot &c. The term is a common archaic one (N. E. Asiatic, African).

The following are examples of the pure binary systems of Australian and Torres Strait. Kamilarai, 1, wa-kol; 2, bulo-ara (ara is also used as a dual and plural def.); 3, ŋgoro, (apparently a flexion of the kol of 1); 4, wa-ran, (a reduplication of the dual postfix). Peel Riv. 1 peer; 2 pul-ar; 3 pur-la (a phonetic flexion of 2). Wiradurei, 1 ngun-bai; 2 bula; 3 bula-ngun-bai (2, 1.); 4, bu-ngu (apparently a flexional contraction of 3, but probably the full term 3, 1). Bijne-lumbo 1 war-at; 2 ngar-gark (i. e. "one-one," the ngar, gar being the Southern ngoro, kol, *loha*, which preserve the definitive postf. as in Bijne-lumbo); 3 ngar-gark war-at (2, 1) &c. Erub, 1 ne-tat; 2, naes; 3, naesa-netat (2, 1); 4 naesa naes (2, 2) &c. &c.

The prevalent Malayu-Polynesian system is the Malagasy which has strong and fundamental Semitico-African affinities, and only very remote ones with Dravirian or Chino-Tibetan. In Asonesia there are also quinary systems and remnants of binary, ternary and senary scales, but as these are in many languages more or less mixed with the Malagasy-Polynesian denary terms, and as the Sifan and Ultraindian systems also contain quinary terms, it will be convenient to postpone the further consideration of the insular systems till the Ultraindian have been examined.

The Chino-Tibetan and Ultraindian numeral system differs from the Dravirian, although one or two elements are common to both.

From the above facts we are justified in the inference that there was an archaic binary numeral system which spread from India to Asonesia, and that in later eras larger systems were built on it, generally by quinary and denary methods, but with the ancient binary elements chiefly.

These later formations were entirely independent in India and Asonesia. The Australian systems are still essentially binary. They have not become even quinary, the few terms beyond 2 being chiefly variations of the lower terms. The series is still 1; 2; 2, 1;

2, 2 &c, but with some elisions, contraction and replacements.

In India and Ultraindia, only two systems remain of the ante-Chinese era, the Dravirian and the Kol-Ultraindian,—the latter however presenting two varieties, the Kol and the Mon. The Kol is quinary and denary like the South Dravirian, and it has been formed from the same elements. But while the general method is the same, even to the preservation of possessive or qualitative postfixes, there is a deviation in the mode of forming one or two terms, and the elements in the lower numbers are in some cases differently applied. The two systems were therefore independently formed from common materials at a very ancient period and before the various elements had become concreted.

The most archaic term for 1 appears to have been the labial vo, mo, mu, bo, po, ba, pa &c. It is found in S. Dravirian, Kol, Ultraindian, Australian and a few other Asonesian languages. It is the definitive and 3rd pronoun common to Draviro-Australian with Sifan-Ultraindian.

In all the dialects of the Gondo-Tamulian branch of Dravirian, save Toda and Telugu, it has been superseded by another Dravirian, definitive, on, un, or, which is also found in Australian as a 3rd pronoun and unit. It occurs as a definitive and as the unit in Lau and in various Asonesian systems.

Australian has a third term, kol, kul, &c, which appears to be preserved in the Kol 10.

For 2 the S. Dravirian root appears to be a contraction, ir, er (en, re), euphonically vocalised into ira, era, (eno) before the consonant of the possessive postfix. It enters into the Kol bar, Ultraindian bar, mar, and the Australian bul, pul, bula, bari &c. In Australian it appears in 1 under the forms bar, wara, mara, and in 3 as mur, bur, pur, mar. The variation of the vowel from u to a which appears in the Kol and in some of the Australian terms, is found also in South Dravirian higher numbers, as well as in the postfixed definitive. The Australian terms show that the Kol compound is not a comparatively recent one, and a similar inference may be drawn from the Dravirian 3, as well as from the preservation of the same compound in the plural of the Dravirian 3rd pronoun.

The S. Dravirian 3 is the labial unit repeated as in other binary

systems. In the original crude form of the system it must have been preceded by the term for 2. The inverted Kol form *op* may indicate that a partial accommodation had taken place between the labial and the prefixed term for 2 (*bar-op-ia*, *bar-p-ia*, for *bar-mo-ia*, *bar-po-ia* &c). The Australian terms coincide so closely with the South Dravirian that it might be supposed they preserve the South Dravirian possessive postfix, but it is probable that the final *r*, *ru*, *ra*, &c. is the numeral element, as in the lower numbers and in the Kol 2. The Wiradurei *bula-ngunbai* (2, 1) preserves both terms. The Kamilarai *n̄goro* has rejected the term for 2 like the Dravirian words. The Peel River *pur-la* preserves the word for 2 (*pul-ar*), varied by a slight inversion, and rejects that for 1. The Erub like the Wiradurei is 2, 1.

The South Dravirian 4 is binary, 2, 2. The Kol-Ultraindian is probably also binary. In Australia some of the languages, with Erub, have 2, 2, and others 3, 1. The Kamilarai *ran* of *wa-ran* is a flexional reduplication of the *ara* of *bulo-ara*, 2, as the Dravirian *nal*, non is of *ra*, no 2. The two modes of expressing 4 probably prevailed in India prior to the Asonesian migration.

The Australian numeral system is identical with the basis of the Dravirian. The full Kol terms shew this identity more clearly than the S. Dravirian. The first five numerals are repetitions of the same labial-liquid root, and the Australian system explains how this arose. 2 was 1, 1; 3 was 2, 1; 4 was 2, 2; and 5 was 1. By the dropping of some of the terms in the compounds, and by variations in those that were retained, each numeral ultimately acquired more or less peculiarity in its form. The Kol series resembles the simpler Australian, such as the Peel Riv. *peer* 1, *pular* 2, *purla* 3. But most of the Australian have 2 elements, and thus resemble the S. Dravirian more than the Kol.

The forms of the numeral roots, and their relation to the forms of the parent definitives in the different dialects of Dravirian, show that there has been some displacement in most of these. An assimilative process has been in operation more than once, with relation to the 3rd pronouns as well as to the numerals, to the possessives and other particles, and to many substantive words. It may be possible to trace from what dialect *va*, and not *ma*, *vo*, *wu* &c., became the prevalent 3rd pronoun,—*du*, *ru*, *tu*, the most prevalent possessive and qualitative both in pronouns

and numerals, and not the Ancient Tamil and Kol iya, ia &c.,—on, the common form of 1, and not the labial or the other forms of the nasal definitive, an, yan &c.,—mu the numeral 3, and not vo as in 1, &c. &c. Such a research into the dialectic history of Dravirian would carry us beyond the scope of our present enquiry, fruitful though it probably would be in data illustrative of Australian and early Asonesian philology.

From the accordance between the definitive and numeral systems both in Dravirian and Australian, it is clear that the latter system is equally native with the former in its elements and in their combinations in the lower numbers. Any foreign affinities not due to the spread of the Dravirian terms themselves, must hence be considered as indications not of a derivation of the numerals from another formation, but of a primary community of roots between Draviro-Australian and certain other archaic languages. Such affinities go beyond the history of Dravirian in all its later pre-Arian stages, and even beyond its crude Australian stage. They are vestiges of a period when the mother Draviro-Australian language was, in roots at least, only one of the dialects of a formation that was subsequently to be variously modified and developed in different regions and under different influences. The superimposed quinary and denary systems, with the Dravirian mode of forming 8 and 9, indicate affinities belonging to much later periods. The civilization which originated them was unknown to Draviro-Australian at the time when the early Asonesian migrations took place. It may be possible to connect their introduction with that of other words indicative of a range of ideas and of art above the Australian, and to find in them traces of a pre-historical intercourse of other civilised Asiatic peoples with the ancient Indians. The gradual departure of the Indian physical type from the Australian towards the Scythico-Semitic may also be found to synchronise with the progress of the changes in the vocabulary.

The Dravirian systems have no decided affinity with the adjacent Iranian, Semitic or Caucasian. But several of the terms belong to ancient Asiatic formations which appear to have predominated prior to these. The terms in question are found in the Ugro-Koriak languages on the North East, and in the Semitico-African on the South West.



The labial unit is found in the N. and E. Asian systems, but it is much less common as a definitive and unit than the sibilant, (varying to dental, guttural &c.). From its more general occurrence in some higher numbers than in 1, it is probable that it was of greater importance in an archaic stage of the Scythic systems. It is still found as 1 in Japanese, Turkish, Tungusian and some Ugrian languages. As 2 it is found in remote Eastern languages, Namollo, Korian and Japanese, and as an element in some Ugrian terms. As 3 it is Japanese. It does not occur as 4. In 5 it is Kamschatkan, Koriak, Ugrian and Turkish. In 6 it is found in Japanese and Samoiede, and as an element in Namollo (2) and Ugrian (1); in 8, Namollo, Chinese and Ugrian; in 9, Namollo and Ugrian; in 10, Kamschatkan, Aino, Tungusian, Samoiede, Ugrian and an element in Namollo; in 100, Chinese; in 1,000, Turkish and Mongolian. As a definitive the labial is very archaic in the N. and E. Asian languages. As a concreted postfix it is found in Scythic vocabularies. In Yeniseian it is still current as the 3rd pronoun, bu, ba-ri. Turkish also preserves it in bu, and Samoiede in pu-da, py-da &c. [See the remarks on the Draviro-Australian 3rd pronoun, *ante p.*] In the Scythic languages the sibilant (or guttural) with the liquid postfix predominates as the 3rd pronoun,—son, sin, kini, tha, sya &c. The history of the labial unit and definitive in the Semitico-African systems is of a similar tenor. In the Semitic branch it is only used as an ordinal, the cardinal being the common Scythic and Indo-European guttural, aspirate &c. In Africa several languages retain it as the cardinal, and it re-appears in higher numbers. The common form wal, war, bar, bari, mal, &c. is the same as the Draviro-Australian. The Turkish bir, a variation of the Scythic bis &c. of higher numbers, is a similar form. The prominence of the labial, and the absence of the sibilant, unit is one of the chief peculiarities of the Draviro-Australian system when compared with the N. and N. E. Asian, the Caucasian, the Indo-European and the Semitico-African. In this respect it appears to preserve a more antique character than those in which the labial has given place to the sibilant &c.

The Draviro-Asonesian nasal 1 is Indo-European, Mongolian, Samoiede and Koriak. It is referable in these formations, as in the Draviro-Australian, to a pronominal root. Semitico-African

has *la* variable in higher numbers to *le*, *ne* &c., but it is very rare and may be from the labial, *ba*, *bal*, *bar*, *ban* &c. The Australian *kol*, *kul* &c. and *Kol gel*, *gil*, *gul* is a unit and 3rd pronoun in N. E. Asian languages, and it is also found in the Semitico-African numeral systems.

The Draviro-Australian contracted root for 2 (*ir*, *ar*, *ra* &c.) is Chinese, Japanese, Ugrian, Caucasian, Indo-European (in 4), and Semitico-African. The combination with the labial as the initial element occurs in *Namollo* (*mal*), and it is common in Africa, which it appears to have belonged to a predominant Semitico-Libyan numeral system, of which the Semitic, in its present condition, may be considered as a remnant. Semitic in its existing form has the sibilant and not the labial initial (*ath-in*, *si-l*, *ta-r* &c.), in this resembling Mongolian, Tungusian, Samoiede and Caucasian terms (*si-ri*, *ds-ur*, *ko-ir* &c.). But in 4 it appears to preserve a contracted form of a common African term (*ba-r*, *ma-l*, *ba-ni*, *bi-ni*, *bi-ri*, *vi-di*, *fu-la*), identical with the *Kol-Australian*. In the occurrence of the labial both in 1 and 2, as well as in its form, the archaic Draviro-Australian system is cognate with the archaic Semitico-Libyan. In the general dual and plural force of the second element, *n*, *l*, *r* &c. they also resemble each other and Scythic. In all the formations this generic application appears to have arisen from the use of the particle as a numeral.

The Draviro-Australian 3 is peculiar. The labial does not appear to occur as a root for 3 in any of the Aso-European or African systems, save in the Turkish *wis* and Japanese *mi* (whence *mu* 6, i. e. 3 dual). In the other systems the sibilant unit has as much currency in 3 as in 1. In its double form, or with the second element as a liquid, it is common to N. and E. Asian, Indo-European and Semitico-African systems. In this numeral Draviro-Australian shows its primitive and persistent character more even than in its 1 and 2.

The S. Dravirian root for 4 is Ugrian and Semitico-African, and the reduplicated form is found in both of these provinces. In the Ugrian it may be referred to the Chino-Tibetan *ir*, *il*, *li*, *ni nyi* &c., as an archaic Asiatic definitive for 2, preserved in the, Dravirian 2, 4 and higher numbers. In the Semitico-African

province its occurrence in 4 is also explained by its presence in 2 (ri, ar, li, &c.). It is found in both the forms of 2, na, ni, &c. and far, fur, &c. contracting to ar as in the corresponding terms for 2. The Indo-European t-var,—in which the dental appears to be a distinct element as in 3, t-ri, and 2, d-wa,—contains the same root, and is a similar form to the Scythic d-wa-ta, d-u-r-ta &c., the d-wa of 2 being the same term, with the liquid elided. From the distribution of the liquid it is probable that it was current in some diffusive Mid-Asian system before it spread as 2 and 2 dual to India, Africa and Northern Asia. The Kol labial 4, is a similar binary term to the Semitico-African far &c.

The S. Dravirian 5, seems to be also purely native. The Kol labial term has affinities with those Scythico-African systems in which the labial unit recurs in 5 and frequently in 10 also. The S. Dravirian labial 10 is a common Aso-African application of the labial unit. The archaic African forms in 5 and 10, pu-na, po-na, mo-n, fu-n, bu-re, ma-r, vu-lu &c. and the forms of the same term in 1, 2, 4, 6, &c. (mal, bar, wan, mo-r, wo-ro, &c. &c.) resemble the Dravirian more closely than the Scythic in which the final element is usually the sibilant. The expression of 5 by a unit, and the formation of higher terms by using 5 as the radix (now generally elided or understood), appears to have preceded the denary scale in every province of the Old World save the Australian. In most of the formations of Asia the quinary system is found either as the ultimate one, or with some of its terms keeping their place under a decimal system. It is still very prevalent in Africa, and many of the African systems, like some of the Asonesian, Ultraindian and N. Asiatic, have the quinary terms entire and undisguised.

The formation of lower numerals by subtraction from higher, is found in many systems in different parts of the Old World, (Asia, Africa, Asonesia), and also in America. That of 8 as "2 short of 10" is less common than 9 as "1 short of 10." The fact of such a term for 8 being common to Ostiak, N.E. Asiatic and to some Indonesian languages was remarked by Dr Peacock in his excellent treatise on arithmetic. In several of the N. Asiatic languages both the quinary and denary modes of expressing 8 and 9 are used. In Aino-Kurilian all the numbers between 5 and 10 are denary,

6 (4, 10), 7 (3, 10), 8 (2, 10), 9 (1, 10). In the Semitico-African systems, terms for 7, 8 and 9, formed in the same mode, occur in several languages.

The combination of servile definitives with those which are used as numeral roots, is common to nearly all formations, although in many of the agglutinative and flexional the two elements are more or less concentered, abraded and disguised, and the accordance between the postfix and current possessive or qualitative particles has seldom been preserved. The Dravirian postfixes -du, -ru &c, di, -ti, -ji &c, and -ia. are not prevalent in the Scythic numeral systems. They are Caucasio-African. In the Semitico-Libyan systems the dental is a common postfix with numerals. In that formation it has acquired a feminine power, but it appears to have been originally common.

From these notices it appears that the Dravirian system in its ultimate definitive roots, in its successive developments or acquisitions of binary, quinary and decimal modes of numeration, in the mode of expressing the numbers immediately below 10 with reference to it, in the recurrence of the unit to express 5 and 10, and in the use of servile definitives with the numeral roots, resembles most other decimal systems in the world. The roots are found as definitives in many other formations (Scythic, Tibeto-Ultraindian, Caucasian, Semitico-African); and in many other languages they are also used as numerals and numeral elements. The Dravirian system has this peculiarity, that in Asonesian languages we have its purely binary stage preserved to this day. Until all the Aso-African and the connected American numeral systems have been thoroughly analysed and compared, it does not appear possible to trace the later developments of the Dravirian to their historical causes. The system certainly has not been borrowed from any of the later dominant races of S. W. Asia on the one side (Iranian, Semitic, Scythic), nor from the Chinese on the other. It has elements in common with most of these systems, and it must be considered as equally archaic and independent. Its connection with them must be exceedingly remote. It belongs to an era when neither they nor Dravirian had taken their existing forms. The numeral application of the definitives probably originated in a proto-Scythic formation, like

the definitives themselves, and the African affinities are probably owing to derivation from a like source. The African terms present more affinities in roots and combinations than the Scythic, but Scythic has remnants of similar forms.

The African affinities connect the Dravido-Australian quinary or basis system with the most archaic form of the Semitico-African system more closely than with any other. But the former is simpler and more primitive than the latter, in which the sibilant series of terms, found in all the Asiatic systems, blends with the labial and preponderates over it. The African systems appear to have been more influenced by the Semitic in its later gradations, and the Semitic by the Scythico-Iranian, than the Dravido-Australian by any foreign systems. The Dravido-Australian would appear to be the most faithful representative now existing of an archaic S. W. Asian system of definitives and numerals. This system is still homogeneous, the labial being the principal current definitive as well as unit. In the Semitico-African systems there are remnants of the labial pronoun, but the sibilant is now the principal one. The labial unit of these systems is hence more closely connected with the existing Dravido-Australian, than with the existing Semitico-Lybian, pronouns.

It is worthy of remark that the Euskarian, which has close affinities with the oldest form of the Semitico-African systems, preserves a labial 1 ba-t, bo-t, 2 bi, and 5 bo-r-t z, bo-st. It is found also in 9, be-dera-tzi, and 10 ha-mar (*ante*, sec. 5). The Caucasian, like the Scythic, Semitic and Indo-European, is mainly sibilant, but there are some labial remnants, 2 wi-ba Abkhasian (Eusk. bi, African bi-li, bi &c.); 3 ab-al Lesg., (but this is probably a contraction of chab in which the initial is sibilant as in the Georgian sa-mi &c); 4 wor-ts-tcho Georg., mmuk-ba, boo-gu, ohw-al Lesg., p-shi-ba, p-tle Circ.; 5, wo-chu-si Georg., p-chi Mis.; 6, f-ba Abkh.; 7 s-wi-di, &c. Georg., wer-al Lesg. buor, uor-l, uosh Misj., b-le, Circ., bish-ba Awar.; 8 rwa, ruo, &c. Georg., mitl-go, mek-go, betel-na, beetl-gu, mei-ba &c. Lesg., bar, bar-l Misj.; 9, b-gu, boro Circ.; 10 wit, with Georg., wez-al Lesg. p-she Circ. In some of these terms, however, the labial is probably prefixual.

The labial system would appear to have predominated in S. W. Asia and spread thence to India and Africa before the

sibilant acquired its present prominence. Both terms may have co-existed as definitives and units in the oldest pronominal and numeral systems, although their relative importance varied in different eras. The acquired sexual application of the two definitives, and the proneness at one time to extend the application of the masculine and at another that of the feminine to inanimate substances, would account for this. The later tendency to throw off the distinction of gender, and to retain only the form in most common use, ends in a still greater impoverishment of the original variety of forms and terms. The Dravido-Australian, like the Tibetan and some other Asiatic systems, has no trace of gender in its labial definitive. In the Semitico-Libyan the labial and sibilant appear to have been also originally common, but at an early period the former became masculine and the latter feminine.

The system may be considered as of equal antiquity with a very archaic formation which was diffused on the one side as far as Africa, and on the other over Central and Eastern Asia. Although the system, both in its terms and in the principle of its formation, has affinities with other languages, it cannot be derived as a whole, or even in the bulk of its materials or in the model of its construction, from any other now extant. The affinities, however, point distinctly to S. W. Asia more immediately, and to an epoch antérieur to the diffusion not only of the Semitico-Libyan and Iranian but of the Caucasian systems. It appears to be of the same archaic origin as the basis of these systems themselves and of the other systems which were dispersed over Asia before the former began to predominate. The Ugro-African affinities of the Dravirian establish this. There is another test of its relative ethnic position. The remotest and least advanced Asiatic and American systems have only terms for 1 and 2, for 1, 2 and 3, or for 1, 2, 3 and 4. This may be said to be the case with that of the Australian formation, the general Dravirian affinities of which are strong. The Australian proves that the primary Ugro-Dravirian formation prevailed in S. W. Asia, including India, at a barbarous epoch, prior to the expansion of the simple numerals 1, 2, 3, into higher binary and ternary terms by combination and acquired flexion, a process which preceded the adoption of the quinary and denary scales in S. W. Asia, as is testified by the

Iranian, Semitic, Caucasian and other Asiatic and African systems retaining terms so formed. The Dravirian numerals belong to the same era of S. W. Asian civilisation that gave birth to these improved systems, and they must therefore have been brought into use in India long subsequent to that period of its history represented by Australian civilisation. The denary system was not imported by the earliest race, whether Negro or Australian, which laid the foundation of the Indian languages, but by a subsequent race from S. W. Asia, whose civilisation was connected with that in which the subsequent Semitic and Iranian diffusions originated. The Dravirian numerals are not derived from any of the leading Asiatic systems, and their connection with these is extremely remote. The Turkish and Ugrian systems are nearer to the Caucasian on the one side and to the more remote N.E. Asiatic on the other, the Iranian is nearer the Semitic, and the African are nearer the Semitic, the Iranian and the Scythic, than the Dravirian is to any of them. The introduction of the denary scale into India is probably connected with the advance into it of one of those Scythoid races of partially Irano-Semitic character, the archaic influence of which on the physical form of the Southern Indians is so observable. The Todas may be nearly pure descendents of the very race which imported the system.\*

### III. MISCELLANEOUS WORDS.

For the miscellaneous glossarial comparisons of the Ultraindian and Indian division of the present enquiry, it will be convenient to take the list of sixty miscellaneous substantives originally com-

\* Dr Stevenson in his "Collection of words from the Toda language" (Journ. Bombay As. Soc. i, 155, for 1842) gives some foreign affinities. For 1 he adduces the Latin unus, Tungus. mukom, Koibal unem. 2, Tungus. djuhr, Arm. yergu. 5 Chinese inr. 6 Turkish alti, Yenisei. ram, agam. 7 Arm. yeotin. 8 Arm. ut, Lat. octo, Eng. eight, Sansk. ashta. 9 he explains as 1 less 10. 10 he compares with the Tibetan buchü, but [the true Tib. form is *öchu* in which *b* is prefixal and unconnected historically with the Drav. labial root, save in so far that both are ultimately the same definitive].

The Rev. Bernhard Schmid, in his "Essay on the Relationship of Languages and Nations" (Madras Journal v, 133) had also previously (1837) given tables in which the Dravirian numerals are compared with a great variety of foreign ones, but his affinities are too indiscriminating. As I had not read this paper when my comp. voc. was printed I give his list (p. 157) of the Toda terms, which contains some variations not found in my voc. 1 odd, corresponding with Dr Stevenson's orr and a contraction of vodda. 2 atu, ait. 3 muthu, mud. 4 nalk, nank. 5 uj. 6 or, od. 7 or, ud. 8 otihu. 9 unboth. 10 potthu, 11 ponnod &c.

[Some remarks on Dr. Müller's comparisons of Dravirian with Scythic numerals will be found in another place.]

piled by Mr Brown in twenty two Ultraindian and East Himalayan languages, and to which other Ultraindian and many Gangeitic languages have been added by Mr Brown himself, Captain Phayre, Mr Hodgson and others. Mr Hodgson has adopted this list of substantives for his series of comparative vocabularies, adding to it a large number of words of other classes. I have used the vocabularies of the South Indian languages compiled for him by Mr Walter Elliot and others, and which have been already mentioned in another place, but I have also taken words from my own smaller comparative vocabulary of above 300 words in the compilation of which all the vocabularies and dictionaries within my reach have been availed of. It will be borne in mind that the present paper is mainly directed to phonetic and grammatical affinities, and that the vocabulary in question belongs to the glossarial branch of the Asonesian affinities which will be examined separately. I do not of course assume that the absolute glossarial affinities of the Indian and Ultraindian languages will be accurately represented by the results of an examination of Mr Brown's 60 substantives, and of the pronouns, particles and numerals which have been already adverted to. A collection of whole vocabularies will probably greatly diminish the amount of agreement, because most of Mr Brown's words are of classes that are very subject to diffusion and displacement. It is totally deficient in those words expressive of the most generic actions and attributes which appear to me to be more persistent than other.

The following is Mr Brown's vocabulary. I have added numbers in order to save the repetition of words in some of the comparative lists, given in the next chapter.\*

1 Air	5 Blood	9 Cat
2 Ant	6 Boat	10 Cow
3 Arrow	7 Bone	11 Crow
4 Bird	8 Buffalo	12 Day

\* I have only been able to compare about 40 terms in the list with a large range of foreign vocables. Two of them "Name" and "Village" are not included in my own comparative vocabulary, and several of the others, such as Ant, Buffalo, Elephant, Flower, Goat, Hog, House, Light, Monkey, Musquito, Oil, Plantain, Root, Salt, Skin, Snake, Tiger, Tooth, Yam, are not included in most of the shorter of those vocabularies which have contributed to its compilation. The omission is especially to be regretted in the case of many of the Scythic vocabularies in Klaproth's great collection.



13 Dog	29 Horn	45 Plantain
14 Ear	30 Horse	46 River
15 Earth	31 House	47 Road
16 Egg	32 Iron	48 Salt
17 Elephant	33 Leaf	49 Skin
18 Eye	34 Light	50 Sky
19 Father	35 Man	51 Snake
20 Fire	36 Monkey	52 Star
21 Fish	37 Moon	53 Stone
22 Flower	38 Mother	54 Sun
23 Foot	39 Mountain	55 Tiger
24 Goat	40 Mouth	56 Tooth
25 Hair	41 Musquito	57 Tree
26 Hand	42 Name	58 Village
27 Head	43 Night	59 Water
28 Hog	44 Oil	60 Yam

In estimating the per-centage of affinities I have added 40 words of different classes to complete the hundred. A numerical mode of stating the amount of agreement has been adopted because it is the most definite whatever be the extent of the vocabularies collated; but the value of the result varies of course with the kind and number of the words compared, and all deduction from purely glossarial data must be taken in combination with the evidence of other kinds as to the past and present relations of the tribes themselves. The absolute proportions obtainable from a comparison of entire vocabularies will probably differ greatly from those derived from 100 words. But the relative proportions will not be affected in an equal degree by enlarging the basis of comparison. For example the affinity of the South Indian vocabularies with the Gond may prove to be only 25 per cent. But if so that with the Kol will probably be reduced in a proportion not very dissimilar, so that the relative amount of the South Indian affinities of the Kol and the Gond will not be seriously affected.

In tracing the glossarial history of any formation we must begin with the modern changes. For general ethnology also this is the best course, because the only scientific principle that can guide us in our enquiries into pre-historic events is that nations and their

languages have always been subject to changes similar in kind to those which are now going on in the world, and have been doing so throughout historical periods.

In India the Dravirian formation has ceased to be diffusive and assimilative. It has long been exposed to the influence of the Sanskrit and of the northern Indian tongues that were early assimilated in a greater or less degree to Sanskrit. In the Dravirian family we have therefore to note the mutual action of the different languages and dialects, and the action on each of the Sanskrit and of the Sanskritised or prakrit tongues of the north. The very close degree in which the Dravirian languages of Southern India are related to each other and to the least Ultraindianised languages of the Viadys, in phonology and ideology, has appeared from the details in chap. IV. They are dialects of one tongue, and they appear to differ less from each other than the Philippine languages. The dialectic discordances are exactly the same in kind as those which prevail amongst the Philippine and other groups of Asonesian languages, or amongst the Asiatic members of the Semitico-Libyan formation. All the great families that have been recognized show much larger mutual deviations in their component languages, and we must include Australian to give the formation a comprehensiveness similar to the Scythic or the Semitico-Libyan. Even the Indo-European and the Malagasy-Polynesian are much more diversified than the continental or Kol-Tamulian division. All these widely disseminated families present single languages or groups that, from long and complete separation, have become alienated from each other in the greater number of their roots, in phonology and even in many details of ideology. The transitions are seldom so abrupt as from the Dravirian to the Australian, but this arises from the former being only the last continental and the latter the last insular remnant of a once continuous and widely expanded family, that was early disjoined, and has ever since been subjected in its two divisions to the influence of formations of opposite character,—the Scythico-Iranian tending in the continental division to give a more flexional development to the primary structure which it has in common with them,—and the Niha-Polynesian tending to arrest the natural flexional development and concretion of the insular division, and

to maintain the archaic crudeness of the type while partially transforming it. But some of the contrasts found in other families are as great or nearly as great in degree, as, for example, that between English or Celtic and Sanskrit,—Semitic and Egyptian,—Malay and Tagala—Polynesian and Malagasy,—Manchu and Fin &c. Of such degrees of dissimilitude as that between the Kol and the proper Dravirian group most large and partially mixed families present several examples.

On the subject of the connection amongst the South Dravirian languages Mr Ellis' observations may be cited. "The Telugu, to which attention is here more specially directed, is formed from its own roots, which, in general, have no connexion with the Sanskrit, nor with those of any other language, the cognate dialects of Southern India, the Tamil, Cannadi &c. excepted, with which, allowing for the occasional variation of con-similar sounds, they generally agree: the actual difference in the three dialects here mentioned is in fact to be found only in the affixes used in the formation of words from the roots; the roots themselves are not similar merely, but the same." (Note to the Introduction to Campbell's Telugu Grammar, p. 3.)

It must at the same time be remarked that for many ideas there is more than one native or at least pre-Sanskritic root current, and that the different vocabularies even of the southern group often affect different roots. This feature does not militate against the assertion that the disparities are merely dialectic, for it is common to the Dravirian with every other ancient cluster of dialects. As in other provinces, the capacity for the currency of numerous roots was probably much greater in the earlier ages of the family, when its tribes were more barbarous and more divided. The progress of the great civilised nations and their mutual glossarial interpenetration and assimilation, must have been attended, as in other cases, with the partial obliteration of the vocabularies of subdued or absorbed tribes. In the primary Draviro-Australian era, the number of distinct vocabularies and independent synonymous roots was probably very great; and the difference between the Kol and the Gondo-Tamulian vocabularies shows that in India, even to the latest period of Dravirian predominance, the North-Eastern dialects presented a considerable con-

trast to the southern. So long as dialects spoken by independent or separate tribes exist, the number of roots has a tendency to increase, each dialect being a distinct inlet for foreign words, which may or may not pass by slow degrees into circulation in some or all of the other dialects also, that depending on the nature of the relations amongst the tribes. A gradual and very great glossarial divergency is consistent with the retention of the leading characters of the formation in phonology, ideology and even in glossary. The Indo-European, the Niha-Polynesian, the Tibeto-Ultraiidian, the Scythic, the Semitico-Libyan and all other formations furnish evidence of this. On the subject of the more recent interpenetration of the South Dravirian glossaries Mr Elliot remarks: "All the southern dialects become considerably intermixed as they approach each other's limits. Thus the three words for "egg" used indifferently by the people speaking Canarese, (*matté, tetti, gadda*) are evidently obtained, the first from the Tamulian, *matta*; the last, from the Telúgú, *gadda*. This intermixture, which is of ordinary occurrence in all cognate tongues, is here promoted specially by extensive colonization of different races, as of the Telúgú into Southern India under the Bijaynagar dynasty, where they still exist as distinct communities—and of the followers of Rámanúja Achárj into Mysore, where they still are to be seen as a separate class speaking Tánail in their families, and Carnátaca in public. The Reddies also, an enterprising race of agriculturists, have migrated from their original seats near Rajahmandry, over the whole of Southern India, and even into the Maháráshtra country, where they are considered the most thriving ryots, and are met with as far north as Poona." (*Journ. Asiatic Soc.* vol. 18 p. 350).

So far as the testimony of the 100 words which I have compared can be relied on, the South Indian or purest Dravirian vocabularies would appear to have 30 to 40 per cent of their words in common with Gond, Male and Uraon; and less than 15 per cent with the Kol dialects. The specific affinities with the Middle Gangeitic, the Himalayan and the Ultraiidian languages, though considerable as a whole, are so slight for any particular language or group, that it would be unsafe to state then at even a very low number, without a comparison of much larger vocabularies. A few Dra-

virian words are found in Dhimal, some of the Manipuri dialects and Burman.

The Gangetic vocabularies of the Tibeto-Ultraindian and Tibetanised class have many words that appear to be archaic Indian or Dravido-Australian, although not now extant in the South Dravirian languages. The most western, as Tiberkad and Milchanang, present affinities with Eastern Medo-Persian vocabularies. Some of their non-Tibetan terms are clearly ancient Gangetic, for they are found in Asonesia.

The affinities with any single Asonesian language are few, but with the Asonesian vocabularies as a whole they are perhaps more numerous than with those of any other province save the Scythic in its widest range (Caucaso-Koriak). The Australian affinities are far from being the most numerous. Dravirian vocables are found in all the Malayu-Polynesian languages, and as several Dravirian synonyms and varieties of the same root are extant in different vocabularies although not found in Australian, it appears that the Dravirian glossarial current not only set to the eastward in the first Australian era, but continued to do so while changes were taking place in the Indian languages themselves, or in the distribution and predominance of the tribes who spoke them. In the earlier ages of this current it must have chiefly flowed from Bengal along the western seaboard of Ultraindia, and it is to be presumed that the dominant tribes and vocabularies of the Lower Ganges were more or less changed from era to era by the intrusion of other Dravirian tribes from the interior, and by foreign influences transmitted from Irania. In later periods they were affected not only by the ethnic current from Irania down the Gangetic basin, but by the Chino-Tibetan movement from the eastward. As soon as navigation was sufficiently improved to allow of a maritime intercourse along the coast of the Bay of Bengal, the population and languages of the Lower Ganges would be affected by the powerful South Indian nations and by foreign visitors from the west, while the continental and Singhalese South Dravirians themselves would then, for the first time, be enabled to carry on a direct intercourse with Ultraindia and Indonesia. It is probable, from glossarial evidence, that the Dravirians were civilised and maritime before the Arians predominated

in N. India. The influence of a Gangetic sub-formation akin to the Kol is still distinctly traceable in Indonesia, as will appear in a subsequent place.

The remnants of the Dravirian formation in the other existing languages of Northern India, and especially of the Gangetic basin, are of great importance for Asonesian ethnology. It is obvious that from the first era of the Draviro-Australian movement towards the further east, when rude tribes like the Sîmangs and Australians roamed in the Sunderbunds and crept along the creeks on rafts or skins, to the period when civilised Diavirians and Ultraindo-Dravirians navigated the coasts in paravus and spread their maritime art to the remotest islands of the South Sea, the Gangetic population must have been the principal, and, in general, the sole, disseminators of Indian vocables in that direction. Hence a knowledge of the Gangetic tongues in every age, and under each of the great changes they have undergone from the influence of intrusive formations or languages, is essential to a thorough investigation of Asonesian history, and whatever vestiges are recognized of their pre-Sanskritic condition and possessions have an immediate value for that purpose. It has already been remarked in an earlier page, that not only the Vindyan dialects but the Marathi-Bengali or Sanskritised languages of Northern India, present, in their non-Arian element, proportionately more numerous and direct affinities with the Indonesian languages than the South Dravirian. The glossarial and other affinities between the Asonesian formations and the Dravirian will be separately examined. It is sufficient here to indicate their existence and extent in proof of the great antiquity of the latter in India, and of its having exercised a predominant influence in the eastern archipelago not only prior to the Papuan era but subsequent to it, for the Malayu-Polynesian civilisation was not purely Ultraindian or Chino-Tibetan but Gangetic or Draviro-Ultraindian.\*

\* Several examples of this class of affinities will be found in the annexed vocabulary. I take a few words at random from other classes.

*Straight.*

The Dravirian *sarta*, *sariada*, *sariga* &c. is Arian. *Tinnaga* Telug. is spread over Asonesia from Nias to Polynesia, (e. g. *atula*, *atilu*, *tian*, *tatonu*, *betul* &c.) It is connected with the Tibeto-Himalayan *thang*, *tong*, *tondo*, *thunea*, *Naga ating*, *Anam thang*. The Dravirian *nere*, *nerana* is probably also the original of the Indonesian *no-lor*, *lur-us*, *maruru*, &c., *Poly. porore*.

Unlike the Gangetic and Ultraindian vocabularies, the Dravirian have little direct connection with Tibetan. The southern dialects do not appear to have any. The course of the Dravirian current has evidently been from N. W. to S. E. along the southern foot of the Himalayas and not across them, and its immediate origin is not to be sought in the Tibetan direction. The following words in the list show Tibetan affinities, which are probably all or nearly all archaic or extra-Indian in origin,—6, 10?, 11, 19, 33, 37, 38, 39?, 41, 44, 46, 51, 57, 59.

Having thus glanced at the eastern affinities of the Dravirian vocabularies we may pursue the enquiry to the N. W. The influence exerted by the intrusive Sanskrit is the first to be considered.

The vocabularies of the existing Northern languages of India,—Konkani and Marathi, Guzarati, Hindi in its various dialects, Kashmiri, Bengali and Uria—are Sanskritic. A small proportion of the words, estimated at an eighth to a tenth, are non-Sanskritic,

#### *Crooked.*

The Dravirian *koniya*, *konal*, *konalu*, is Arian (*kona* &c.) Another term which has also Arian affinities but appears to be pre-Aryan is *wangkara* Telug., *banka* Bengali, *bengko* Uraon, *beko* Newar, *bango* Sunwar. The root is probably *wang*, *beng* &c. as it occurs in the Telugu *wompu*. Malayalam *valanga*, Tadvaya *monf*, Chinese *wan*. Polynesian *wana*, Australian *balbal*, *wall* &c., Nias *abela*, Bawian *belo*, Bisayan *bali-ku* &c. Malayu *belo* (*tack*), Timor *peno* &c. But, as in numerous other instances, the Dravirian postfix has been imported into Indonesia as a substantive part of the word. The Uraon *bengko* is identical with the prevalent Indonesian *bengko*, and the Newar *beko* correspond closely with the Celebesian *peko* and Polynesian *biko*.

#### *Round.*

The Dravirian *urundu*, *urutu*, &c. is a common Arian &c. root, but it is probably pre-Arian India. Tib. *lumpo*, *riri*, Burm. *lung*, long, Koria *lung-kur*, Indonesian *limbung*. The Himalayan *burbur*, and Male *bevo*, Kiranti *anbo*, are Asonian, *bubu* Ende, *poepoe* Polynesian, *abola* Nias, *bulat* Indonesian, but *bul*, *bur* &c. is also Indo-European, African &c. The Gond *moto* may be Arian, but it has a strong resemblance to the E. African (*Makua*) and Polynesian *poto*.

#### *Few, Small.*

These words belong to a class which is nearly as persistent as the definitives and directives, and which is open to the same objections when used in ethnic comparisons. Some of the Indonesian affinities however are so striking that I will give them. Bengali *kinchit*, Bodo *kitisi*, *tisi* "few" Naga *tesu*, Burm. *tiche*, Karnataka *tusa*, to Dhimal *atoisa*, &c.; Turkish *kitchi*, Singu *katsi*; Malay *kitchi*, *katchi*, ("small"). Tibberkad *zigit* "few", Gurung *chigide*, Kiranti *chichi*, Indonesian *sikit*, *sidikit*, *sakide*, *chuch*, *che* &c. Sunwar *iska*, Naga *isluka*, Karen *siko* &c. Indonesian *siku*, *sakui*, *usi*. Most of the other numerous Asonian terms have also direct continental affinities, Ultraindian, Caucasian, N. and E. Asian, African or Iranian.

and amongst these Dravirian roots are found.\* Most of these are probably remnants of the Dravirian basis of the North Indian languages, like the structural traits and some of the particles noticed in Section 7.

The influence of Sanskrit on the southern languages has been much smaller, but it is nevertheless considerable. On this subject Mr Campbell has remarked: "The third class of words which is generally mentioned by Dr Carey as "derived from the Sungskrita," I have named *Sanskrit corruptions*; it consists of words which have passed into Teloogoo, either directly from the Sanskrit, or through the medium of some of its corrupted dialects, such as the Pracrit, and which, in order to be assimilated to the *language of the land*, have undergone radical alterations, by the elision, insertion, addition, or subtraction of letters. These changes have been sometimes carried so far, that it is difficult to trace any connexion between the adulterated word and its original in Sanscrit." "The reader will find all words denoting the different parts of the human frame, the various sorts of food or utensils in common use among the natives, the several parts of their dress, the compartments of their dwellings, the degrees of affinity and consanguinity peculiar to them, in short all terms expressive of primitive ideas or of things necessarily named in the earlier stages of society, to belong to the pure Teloogoo or *language of the land*. It is true, (so mixed have the two languages now become) that *Sanskrit derivatives or corruptions* may, without impropriety, be occasionally used to denote some of these. This, however, is not common; the great body of Sanskrit words admitted into the language consists of abstract terms, and of words connected with science, religion, or law, as is the case, in a great degree, with the Greek and Latin words incorporated with our own tongue: but even such Sanskrit words as are thus introduced into Teloogoo are not allowed to retain their original forms, they undergo changes, and assume terminations and inflections unknown to the Sanskrit, and, except as foreign quotations, are never admitted into Teloogoo

\* Dr Stevenson is still investigating this subject. Since the earlier chapters of this paper were published two portions of a comparative vocabulary of non-Sanskrit words in the Indian vernaculars have appeared in the *Journal of the Bombay Asiatic Society*, vol. iv p. p. 117, 319 (1852-53), and to these I may refer my readers for examples of vocables common to the purer and to the Sanskritised languages of India.



until they appear in the dress peculiar to the *language of the land*." (Introduction to Telugu Gram. p. p. xix, xx.)

Mr Ellis, in his note to Mr Campbell's Preface, has the following observations on this subject. "In the preceding extracts, the author, supported by due authority, teaches, that, rejecting direct and indirect derivatives from the Sanscrit, and words borrowed from foreign languages, what remains is the *pure native language of the land*: this constitutes the great body of the tongue and is capable of expressing every mental and bodily operation, every possible relation and existent thing; for, with the exception of some religious and technical terms, no word of Sanscrit derivation is *necessary* to the Telugu. This pure native language of the land, allowing for dialectic differences and variations of termination, is with the Telugu, common to the Tamil, Cannadi, and the other dialects of southern India: this may be demonstrated by comparing the Desyam terms contained in the list taken by Vencaya from the Appacaviyam, with the terms expressive of the same ideas in Tamil and Cannadi. It has been already shewn that the radicals of these languages, *mutatis mutandis*, are the same, and this comparison will shew that the native terms in general use in each, also, correspond."—(p. 18). "From the preceding extracts and remarks on the composition of the Telugu language, as respects terms, it results that the language may be divided into four branches, of which the following is the natural order. Desyam or Atsu-Telugu *pure terms*, constituting the basis of this language and, generally, also, of the other dialects of southern India: Anyadesyam *terms borrowed from other countries*, chiefly of the same derivation as the preceding: Tatsamam, *pure Sanscrit terms*, the Telugu affixes being substituted for those of the original language: Tadbhavam, *Sanscrit derivatives*, received into the Telugu, direct, or through one of the six Prácrits, and in all instances more or less corrupted. The Grámyam (literally "the *rustic dialect*," from Grámam Sans. a village) is not a constituent portion of the language, but is formed from the Atsu-Telugu by contraction, or by some permutation of the letters not authorised by the rules of Grammar. The proportion of Atsu-Telugu terms to those derived from every other source is *one-half*; of Anya-désyam terms *one-tenth*; of Tatsamam terms in general use *three-twentieths*; and of Tadbhavam terms *one quarter*.

"With little variation, the composition of the Tamil and Cannadi are the same as the Telugu, and the same distinctions, consequently, are made by their grammatical writers. The Telugu and Cannadi both admit of a freer adoption of Tatsamam terms than the Tamil; in the two former, in fact, the discretion of the writer is the only limit of their use; in the high dialect of the latter those only can be used, which have been admitted into the dictionaries by which the language has long been fixed, or for which classical authority can be adduced; in the low dialect the use of them is more general—by the Brahmans they are profusely employed, more sparingly by the Sudra tribes. The Cannadi has a greater and the Tamil a less proportion of Tadbhavam terms than the other dialects; but in the latter all Sanscrit words are liable to greater variation than is produced by the mere difference of termination, for, as the alphabet of this language rejects all aspirates, expresses the first and third consonant of each regular series by the same character, and admits of no other combination of consonants than the duplication of mutes or the junction of a nasal and a mute, it is obviously incapable of expressing correctly any but the simplest terms of the Sanscrit; all such, however, in this tongue are accounted Tatsamam when the alteration is regular and produced only by the deficiencies of the alphabet.

"But, though the derivation and general terms may be the same in cognate dialects, a difference in idiom may exist so great, that, in the acquisition of one, no assistance in this respect can be derived from a knowledge of the other. As regards the dialects of southern India this is by no means the case,—in collocation of words, in syntactical government, in phrase, and, indeed, in all that is comprehended under the term idiom, they are, not similar only but the same." (p. p. 21, 22).

Mr Elliot has also more recently remarked on the aptitude of the South Dravirians to substitute Prakritic words for aboriginal ones. (Journ. As. Soc, of Beng. vol. 18, p. 350). \*

\* The form of the Sanskrit words is much purer in the Dravirian than in the Sanskritoid languages themselves, and the reason is well explained by Dr Stevenson in one of his recent papers. "In reference to the Sanskrit portion of the vernacular languages of India it is a singular fact that it is purer among the inhabitants of Malabar and Mysore than among those of Bengal and Upper India. The reason of this can easily be given, though it be not at first obvious. In Upper India, Bengal and Gujarath, nine-tenths of the language is a corrupted Sanskrit. The

In the short list of familiar words contained in the appended comparative vocabulary, several examples occur of Sanskrit or Arian terms which have gained equal currency with native ones or replaced them. Parallel phenomena are found in all vocabularies and are very prominent in those of nations which have had much intercourse with others superiour to them in civilization, or politically paramount. Sanskrit has been received into the glossaries and literature of Southern India as freely as it was into those of the civilised western nations of Indonesia, or as Chinese has been into those of Korea and Japan.\*

The Dravido-Australian languages have a connection with the Sanskritic which belongs to a much more ancient period of their history than that which followed the entrance of the Arians into India. This archaic connection is probably itself susceptible of reference to more than one era and condition of the Dravido-Australian formation. The glossarial affinities between Australian and Sanskrit† must belong to the earliest stage of the relationship between the two formations, because the former represents the most primitive and least modified form of Dravidian. The Australian form is archaic even when compared with Dravidian, and it is still more archaic when compared with Sanskrit. The glossarial affinities may be considered as carrying back the history of the Indo-European formation to its proto-Scythic condition. The archaic affinities of the Bengali-Marathi and proper Dravidian vocabularies with those of Sanskrit and other Indo-European

Brahmans and higher classes there more easily fall into the prevailing pronunciation of Sanskrit words, whereas in the South, the Sanskrit vocables, being rarely used by any except Brahmans or well educated persons, the primitive forms though with the notable exception of the dropping of the proper marks of the genders of nouns, have been most carefully preserved." (Journ. Bombay As. Soc. vol. iv p. 121). The Sanskrit vocables that have been adopted into Indonesian languages have a similar comparative purity.

\* Dr Prichard appears to have adhered to Klaproth's belief that there is a class of words of the first necessity which are preserved long after other kinds of words are replaced, and thus form one of the tests of linguistic affiliation. W. Von Humboldt has more accurately remarked, "It is generally believed that the affinity of two languages is undeniably proved if words that are applied to objects which must have been known to the natives ever since their existence, exhibit a degree of resemblance, and to a certain extent this is correct. But, notwithstanding this, such a method of judging of the affinity of languages seems to me by no means infallible. It often happens, that even the objects of our earliest perceptions or of the first necessity, are represented by words taken from foreign languages, and which belong to a different class."

† Some examples of this will be found in the appended vocabulary. Others will be given in the section on Australian.

languages having the same roots, probably belong in part to much later periods, and while some are doubtless of Arian origin in the trans-Indus ages of that formation, others, it is reasonable to conceive, must be of Dravirian origin. If, as appears to result from ethnic evidence of all kinds, the Dravirian formation preceded the Indo-European in eastern Irania, it is very improbable that no native terms were adopted by the intrusive Arian vocabularies. It is equally improbable that in Northern India, where the ancient formation has never been wholly eliminated, Sanskrit did not receive other additions from the vocabularies of the subject and partially helotised tribes.\*

When we compare the various forms of roots common to the eastern Indo-European languages—those of Irania and India—with the Draviro-Asonesian, we frequently find that several of the archaic insular forms, Australian, remote Papuanesian &c., are identical with Irano-Indian forms. It is sometimes erroneously assumed that roots common to Sanskrit and Zend with the spoken Medo-Persian and Indian languages are necessarily original in the former and derivative in the latter, and that all the variations from the Sanskrit or Zend forms are corruptions of them. There is no reason to believe that in archaic times one Indo-European nation, speaking one dialect, was ever so civilised, populous and powerful as to occupy all Irania. The Sanskrit-speaking tribe, when it first comes into the dawning light of history, is found restricted to a petty district in N. W. India, and it never succeeded in imposing one dialect even on the basin of the Ganges. The present vocabularies prove that dialects preserving Dravirian ingredients of different kinds have always existed in this province. The living vocabularies of Irania afford similar evidence, for they possess roots that are not Sanskrit or Zend, in common with Indian and Asonesian languages, and varieties of Sanskrit roots which have an equally wide dissemination. A large proportion of these vocables probably existed in different Iranian dialects not only contemporaneously with Sanskrit

\* See the remarks on this subject in the Introductory Chap. of this Part (*ante* vol. vi. p. p. 686-8). Dr Stevenson, in a paper which had not reached me when these remarks were written, has alluded to the additions which Sanskrit may more recently—that is since it ceased to be a spoken language—have received from native words introduced into the language by provincial writers, and then adopted by lexicographers. Journ. Bombay As. Soc. vol. iv. p. 119.

and Zend during the period of their predominance, but throughout the earlier ages of the formation. Those that are most widely dispersed in the Irano-Indian and Dravido-Australian languages, and those that are found not only in Australian and other archaic Asonesian vocabularies but in Caucasian, Ugrian, western Indo-European and African, render it certain that, even in the crude proto-Arian stage of the Indo-European formation, various dialects existed. In this stage the formation approximated to the Dravido-Australian in its general character, and when it is found that dialectic varieties of a common root are also common to existing Irano-Indian and Dravido-Australian vocabularies, it results that there was a period when the external limits of the two formations were not so far sundered as Ireland and Australia, and when the line of mutual contact was further west than the basin of the Ganges. The dialectic varieties were produced not only before the Iranian formation began to spread to the shores of the German Ocean but before the Dravirian began to move eastward on its route to the Indo-Pacific islands. If they belong to the earliest dialects of the Dravirian formation, they must have existed before the Iranian formation took its distinctive shape. It is probable that they belong to the proto-Scythic basis of both formations. They establish an early and close connection between them, and render it probable that they were at one time contemporaneous in Irania.

The further our comparative glossology advances the more minute and accurate will be our classification of the root varieties common to the two families. But until the vocabularies have been carefully compared not only with each other but with those of all the other families of language, their full historical import will remain concealed. While many of the common Irano-Dravirian roots may, by the structure of the vocables in which they occur or by their distribution, be referred to Ugrian or other families, and some to more modern sources, others appear to be entirely pre-Scythic, in other words they are older than the Dravirian and Iranian formations, and older than the Scythic or proto-Scythic formational basis itself. The form of the pure root in such instances is referable to a monosyllabic condition of the family, not only because it is free from any adventitious characters derived

from the phonetic and structural habits of other harmonic families, but because it is extant in these or in the monosyllabic family in a similar form, although in the former it may be concreted with a definitive. The investigation of the proper glossarial history of the *formation* as such, commences with the separation of this basis portion of the vocabulary from that which has been since acquired. In the Dravirian formation this appears to be less difficult than in the Indo-European. Its basis is closer to the monosyllabic stage. The basis of the latter is Scythic to a large extent.

The other foreign Asiatic affinities of the Dravirian vocabularies must in general be either of similar origin to the common Sanskrit, that is, derived from languages that intruded into India from Irania prior to the Sanskrit era, or they must belong to the pre-Indian era of the Draviro-Australian formation, and have accompanied it in its first advance across the Indus. This does not exclude the derivation of a certain portion from visitors by sea, and from any alien northern and eastern tribes that may have bordered the Dravirian province before the Tibeto-Ultraiadians crossed the mountains. There is no evidence of the existence of such tribes, or of the Dravirian having been preceded in India by any other formation from which words having extra-Indian affinities could have been borrowed.

The affinities of the vocabularies are much more numerous with other foreign languages than with the Tibeto-Ultraiadian. They are very various, and those with remote languages—as the Caucasian and North Asiatic—are so abundant and direct, that they afford similar evidence of the long independence and the archaic position of the mother-formation to that which we have found in an examination of the more generic words and particles.

From the time that diffusive nations of higher civilization than the original Indo-Australian existed to the west of the Indus, a flow of foreign words into the Indian vocabularies similar to the comparatively recent Arian current, must have been going on, age after age, and millenium after millenium. Each foreign, mixed or native tribe that spread such words by its migrations and conquests, would become the cause of further movements and diffusions. The Dravirian terms relating to arts and usages appertaining to a higher civilisation than that of the Australians, Sîmangs

and Andaman islanders, if compared with those of the other languages of the Old World, will probably enable us to ascertain with what races the Indians were most intimately connected prior to the intrusion of the Arians. So far as I have hitherto been able to carry such a comparison, the result is strongly in favour of a great influence having been exerted on the vocabularies of India during pre-Brahminic ages, by Iranian, Semitic, Caucasian and Scythic nations, or by nations of one or more of these races whose vocabularies had borrowed from those of the other races. It is not intended to assert that a Semitic or even a Scythic formation prevailed over Irania as far as the Indus, prior to the Indo-European. That must depend on other than merely glossarial considerations. Whether or not the formation of East Irania remained Dravirian, more or less modified by Scythic influence, until it was displaced by Arian, does not affect the conclusion that, from this province, words of a more western and northern derivation, were transmitted by its tribes to India, during the great interval between the Australian and the Arian epochs. There is no ground to believe that the Caucasian tribes were ever themselves nomadic and diffusive—although other tribes of the same family were—or that purely Semitic tribes speaking purely Semitic languages were ever durably established as far to the eastward as the Indus. The more important modifications which the Dravirian formation has undergone since the Australian era are not of a Caucasian or Semitic character, but of a Scythic and Scythico-Iranian. Whatever changes the vocabularies of eastern Irania underwent, and however much its tribes were modified physically and in civilisation, the linguistic basis would appear to have remained faithful to the Scythico-Dravirian type. The probability therefore is that the Dravirian vocabularies derived those Western and Asiatic terms of art and civilisation, which are posterior in origin to the Australian era, mainly from Scythic, Scythico-Iranian and Iranian tribes, that successively dominated in the basin of the Indus. This is far from excluding Semitic influence, direct or transmitted, for most of the eastern branches of the Iranian race, particularly the tribes near the Indus as the Afghans and Beluchis, are physically highly Semitoid.

The first class of N. W. vocabularies after the Sanskrit, with

which the Dravirian fall to be compared, are the remaining Indo-European, and particularly the various Medo-Persian. Hitherto the glossarial study of the Indo-European family has been chiefly directed to the vocables and roots common to Sanskrit with the other languages of the formation, so that materials are not yet prepared for an ethnic comparison of the Indo-European roots in the mass with those of other formations. As necessarily happens in an ancient, very widely extended, and much divided family, the roots of any one language, such as the extreme eastern—Sanskrit—form but a small portion of the variety now possessed by the family as a whole. Besides the more modern acquisitions of each vocabulary, there can be no doubt that, as a general rule admitting of exceptions, each large group received most of its peculiar roots from the prior languages of the province in which it prevails, or of those provinces through which the tribes which established it advanced from the original Indo-European seat to the lands where they were found at the dawn of history, and that the radical differences in the glossaries are, in great measure, to be so accounted for. Thus while the Arians, moving eastward into the Dravirian province, would have their vocabularies more or less Dravirianised, the ancient Medo-Persian tribes moving on the Caucasian and Semitic provinces, would have their vocabularies affected by those of the native tribes amongst whom they penetrated. Those hordes which passed through the variable Scythic region or continued to occupy portions of it, would, in many cases, receive fresh accessions of Scythic words. Those which moved north westward would probably receive Fino-Ugrian accessions, while those which went westward through Asia Minor would, for a time, be subjected to influences similar to those which have for a longer period operated on the Medo-Persian. In Europe the pioneer migratory tribes must have come in contact not only with Scythic in the north, but with Euskarian, and probably other Scythico-Libyan languages, in the south. Hence probably it is that the glossarial divergency of the Celtic, the Skipetarian, the Russian, the Armenian and the Sanskrit, is greater than that which divides many languages of entirely distinct formations.

The ethnology of S. W. Asia cannot be well understood until the vocabularies of all the races who occupy it have been carefully compared. A comprehensive comparison of this kind must



precede the attempt to trace the history of any one of these formations, and no satisfactory progress can be made in the elucidation of the archaic position and movements of the Dravirian until more light is thrown on those of the Indo-European and Scythic in particular.

The Dravirian vocabularies have some special affinities with the most eastern of the Medo-Persian, those of Afghanistan and Beluchistan. This part of Irania has received new Scythic vocables subsequent to the Arian era, and some of these may have been archaically common to Scythic and Dravirian. But the special affinities in question must be remnants of the pre-Arian era, and thus stand on a similar footing with the Dravirian roots in the Sanskritoid languages of northern India. These affinities are not confined to Brahui. I have observed several in the Pashtu and other published vocabularies which I have partially examined. These vocabularies also have this in common with Dravirian, that they possess non-Sanskrit roots and forms of roots having clear affinities with Semitic, Caucasian and Scythic radicals. While some of the Medo-Persian affinities are exclusively with the proper Dravirian vocabularies, a much larger number include also the Guzarati-Bengali class.\*

These non-Sanskritic roots, and non-Sanskritic varieties of roots that are Sanskrit, common to vocabularies on the western side of the Indus with the ancient Dravirian glossaries, afford some evidence of a period when Eastern Irania was not yet Arianised, and of a connection which then existed between its languages and those of India. It does not necessarily follow that the immediately pre-Arian formation of this province was Dravirian, for even if it was not, it might have had a glossarial connection with it. But as no traces have been remarked of a distinct formation, and as several of the vocables are Dravirian in structure as well as in root, the presumption is that the affinity indicates the former prevalence of the Dravirian formation to the west of the Indus, and this presumption becomes certainty when the affinities of Dravirian with still more western languages are considered. It is quite possible that before the Sanskrit language itself was carried

\* Examples may be found in the annexed vocabulary under the terms Air, Ant, Arrow, Bird, Blood, Boat, Bone?, Buffaloe, Cat, Dog, Ear, Eye, Fire?, Foot, Horse, Stone &c.

into India, other Arian dialects or Dravido-Arian dialects may have existed in the province, and the Scythic element cannot be excluded from the East Iranian languages of any period. But however this may be, we are ultimately carried back to a Dravirian era in the linguistic history of eastern Irania, and it is the oldest that we can recognize.

By far the most numerous glossarial affinities of the Dravirian languages are with a great chain of vocabularies that appears at one period to have extended from the Caucasus to Kamschatka, embracing different formations, although it is probable that this wide dispersion of the same roots was chiefly the work of a race to which one only of these formations was native. The affinities in question embrace Caucasian, Ugrian and Ugro-Tatar, Yeniseian, and, in a less degree, Koriak and other extreme N. E. Asian vocabularies. The Ugrian are the most important, but a considerable proportion are exclusively Caucasian, and a smaller proportion exclusively Yeniseian. The larger portion of these roots appears to belong to the pre-Indian era of the Dravido-Australian formation, and to form an integral part of its glossarial basis. The Caucasian basis is Yeniseian, N. E. Asian and proto-Scythic more than proper Scythic, and the Semitico-Libyan formation is not remotely allied to it by several phonetic and ideologic traits, as well as by roots. The Dravido-Australian formation partly enters into the same circle by some of its ideologic traits, and as the Semitico-Libyan type preceded the proper Scythic in the S. W. province of the Old World, and Dravido-Australian is the earliest of the more Scythoid formations in this part of the continent, it is probable that some of the Caucasian affinities are direct. The more fundamental Ugrian roots, with the Yeniseian and N. E. Asian, render it probable that they were brought by the primary Dravirian-speaking tribes from central Asia. Some are doubtless of later derivation, but the greater portion must be considered as of equal antiquity with those phonetic and ideologic characters which affiliate Dravido-Australian and Ugrian. The more remote N. E. Asian affinities, when not Scythic also, may be still older, for similar affinities are found in the Caucasian, Semitico-Libyan and Zimbrian languages. They may appertain to the non-Scythic southern element of the formation, or to its partially cognate proto-

Scythic or pre-Scythic condition, when it was still located in eastern or central Asia. In the latter case they would rank with the pronouns.

While the roots are largely allied to the Scythic, and especially to the more western and central languages—Ugrian, Samoiede—they are not in general derivatives from Scythic. The structure of the vocables is proper to the Draviro-Australian system, and the forms of the roots are frequently such as are found in other ancient families of language. In general they are to be considered as equally archaic in the Dravirian and Ugrian families, and most of them appear to have been current in the monosyllabic condition of the Dravirian mother tongue. Many vocables proper to a considerably advanced civilization are of this class, and we must conclude that the Dravirian-speaking race which advanced into Irania from the north east and spread over India, was one of the oldest civilised peoples of Asia, and that this family of language was probably the first of the proper Scythico-Iranian stock to become dominant on the shores of the Indian Ocean. To the same great movement from the interior of the continent on the south western lands a portion of the Scythico-Dravirian vocables found so abundantly in the Caucasian and Semitico-African languages is probably to be ascribed. The Asonesian vocabularies contain numerous Scythic, and especially Ugro-Samoidic, roots and varieties of roots that are not now Dravirian, but a large proportion of these appear to belong to the Draviro-Australian era and to be referable to the same long continued movement. In the next chapter we shall find that it also affected the Tibetan languages, western and eastern,—through them, in later ages, the Ultraindian and Gangetic,—and, still later, the Malayu-Polynesian through the Ultraindo-Gangetic. Hence of two Ugrian forms of the same root found in Asonesian vocabularies, it becomes possible to trace one to the primary Draviro-Australian immigrations, and the other to the Gangetico-Ultraindian that immediately preceded the Arian era of India.

The preceding inferences will be best illustrated by taking a few terms from different classes and examining the affinities of the prevalent Dravirian roots.

*Names of parts of the body.*

In comparing the names of the different parts of the body in any group of languages, we find that the same root has received various applications. The same vocable in different languages or dialects signifies Head, Hair, Skull, Face, Cheek and Eye. We find also that the same vocable has been applied to the more prominent portions of the person, as the Nose, Lips, Mouth, Teeth, Ears, Arms, Hands and Fingers, Legs, Feet and Toes. We find also that the same word has been applied to the Head and to portions of it, as the Nose, Mouth, &c. and hence the former class of names runs into the latter, and the same term has come to signify every one of the objects we have named. We also find more limited classes, founded on more specific analogies. Thus words for the Lips, Mouth, Tongue and Teeth are often specially connected. It is probable that one name originally signified the Mouth and all its parts, and that this name afterwards became restricted to the Mouth in one dialect, to the Lips in a second, to the Teeth in a third and to the Tongue in a fourth. The Lips and the rows of Teeth might receive the same radical name. The number and regular arrangement of the Teeth appears to have early suggested a connection between them and the Fingers and Toes. Hence the same root has been applied to the Teeth (and secondarily to the Mouth and Lips), to the Fingers (and secondarily to the Hands and Arms) and to the Toes (and secondarily to the Feet and Legs). Similar specific resemblances,—as between the lateral and double appendages of Ears, Hands and Feet, and the most close of all that between the two Arms, Hands and Fingers and the two Legs, Feet and Toes,—have given rise to specific glossarial applications. The Eye being the most striking and important feature in the Head the same root was transferred from Eye to Head and *vice versa*. Glossarial change and concretion has been attended in all families by similar phenomena. Every vocable in the progress of a nation and of its language receives several secondary or conventional applications, some larger and some narrower than the original or etymological one, and some only connected with it metaphorically. Hence a single root, whatever its original meaning, comes to be applied to numerous analogous objects. Distinctions are primarily indicated by the addition of segregative and qualitative words or by

double words. But when an object has acquired ideal individuality its name tends to become a specific conventional one. Its etymological meaning becomes first obscure and then disappears. Hence any change in the name, however induced, has the effect of giving it a conventional individuality, and of obliterating the sense of the ancient connection with other applications of the same root. For example, if the Hair, Face, Mouth and Nose were originally designated by the single root for Head, the distinctions being indicated by variations in the accessory definitives or qualitatives, these compounds might concrete into words the connection of which was no longer felt, and in the gradual phonetic change to which vocables are liable the root itself in each of its applications might acquire peculiarities of form. By the dropping of the definitives or qualitatives the bare root might come to be used as a distinct word in each of its acquired forms. The most common cause of the limitation of a root or of particular forms of a root to one of several meanings, or to one part of the object it originally described, has been the acquisition of distinct names for some of the other meanings or parts, either in the internal progress of the dialect or from the influence of another dialect or language. The separation of languages into several dialects has been the chief cause of the multiplication of specific conventional applications of the same root, and the mutual influence of these dialects appears to have been the principal reason why we find in a single vocabulary the same root current in different forms and with a different meaning for each.

The glossarial variation and complexity are greatly heightened by the circumstance of the same object having often received several names. The progress of language would tend to give to each a limited conventional application. One of the words for Head might be restricted to Head, a second to Hair, a third to Skull, a fourth to Face, a fifth to Eye &c. Each of the dialects formed before this change began might appropriate a different name to several of these objects, so that the same word might signify Head in one, Skull in a second, Face in a third and so on. As the roots would frequently undergo phonetic changes, subsequent intercourse between the tribes speaking these dialects might lead to a vocabulary which had retained one of the ancient roots with a particular

meaning, receiving the same root in other forms and with different meanings from the cognate vocabularies. Another cause of the same root being found with different applications is that some words were used generically. Thus when the Ears and the Hands were designated by the same root the former might have a word for Head annexed to it. The latter might in time acquire a phonetic form that distinguished this application from the primary one, and the dropping of the other term of the compound might leave the same root current for both Head and Ear, the phonetic variation being sufficient to give to each a complete conventional independence.

The acquisition of new roots from foreign vocabularies and of new forms of native roots from sister dialects not only leads to restrictions in the applications of the old roots but to secondary and even metaphorical meanings becoming the principal ones. Thus a word that at one time means Hair generally becomes restricted to the hair of the head or particular parts of it, of the face or parts of it, as Whiskers, Mustaches &c., or to that of the rest of the person, or distinctively to that of the lower animals, or to one kind of hair, as down, wool, bristles, &c. A word that was originally applied to feathers, hair, grass and other things of a similar growth or appearance may be appropriated to one of them, so that in different dialects and languages the same root may signify Feathers, Hair, Wool, Fur, Down, Moss, Grass, Bur, Bambus, Thorns, Teeth &c. It may also be applied in different languages qualitatively to distinguish particular things or animals, and thus eventually furnish many substantive names, most of which will in time come to be purely conventional. A word for Face or Eye may become Appearance, Look, See, Glance, Watch, Beware, Guard, Show, View &c., while the brightness, sharpness or roundness of the Eye, a convex in a concave, may give rise to numerous metaphorical applications any of which may acquire the rank of a substantive term when the word becomes obsolete in its original meaning. Thus the point or the edge of an instrument, the sun, a gem, a concavity, a hole, a ring, a convexity, an ankle, a kunckle the navel, a nipple, a bud, a knot, a spring, the source or origin &c may in different languages be designated by a root which originally meant the Eye. We can thus see that a very few primary

sounds may have served not only as the phonetic but as the glossarial foundation and material of all language. A root for Head may have not only become restricted to parts of the head, thence to other parts of the body and thence to objects and ideas named from an actual or fancied resemblance to any of these parts, but may have been transferred to Scull, to Bone, to particular bones, to things round, cavernous, hard, protuberant, to the top of anything or of particular things, to masters, chiefs, governors, rulers &c. No roots have been more prolific, and there is hardly any limit to their ramifications. A single instance will suffice to show how roots that have become obsolete or been displaced in their primary or older meanings are preserved in their secondary ones. In Malay Head is *kapala*, a comparatively recent acquisition from Sanskrit. But the native or earlier root, *ulu*, still current in many of the cognate Indonesian languages, is found in Malay with several meanings. Unaccompanied by any other word, it signifies "inland" and "interior." The history of this word is clear. From the Head, it was applied to the highest part of a stream, and as streams are the Malay highways to the interior and the cultivated and inhabited tracts are in general limited to their borders, the *ulu sungy*, the head or upper part of the stream, was synonymous with the interior of the country or district. When *ulu* was by degrees supplanted by *kapala* in its principal meaning, it came to signify the interior even without the addition of the distinctive word for stream. Another of its secondary applications is to the hilt or handle of a weapon or instrument, the blade being termed the *eye*, *mata*, a root which, in other languages, also signifies Eye, Face, Head &c.

What is found on comparing the vocabularies of any single family, is found also on comparing those of all the known families of language. The same terms recur in them and it soon becomes evident that in their primary roots and vocables, they are all intimately related, and are in fact ultimately dialects of one language. The glossarial resemblance is so close and unequivocal, and the transfer of roots from one part of the body to another is so universal a phenomenon, that we arrive at the conclusion that this fundamental portion of the vocabulary was formed, to a greater or less extent, when the different families of language had not separated far from each other. This remarkable connection has

doubtless been brought about in particular cases through the mutual influence of vocabularies that have been brought in contact by ethnic movements, although originally widely separated from each other. But the connection is too intimate and too universal to admit of such an explanation as a general one. It is more probable that the comparatively barbarous and outlying tribes of the world, as the Hottentots and the Australians, carried their cognate Asiatic basis vocabulary from a primitive seat in the vicinity of the parent Asiatic tribes to their present locations, than that it was brought to them there by alien tribes that spread from an Asiatic centre to the extremities of Africa and Asonesia after these were inhabited. We may indeed imagine a succession of such all-embracing movements, but the source of the common vocables must ultimately be found in one centre, and there is a considerable and fundamantal class which appears to be equally archaic in all the families and must be referred to the earliest ethnic movements. Whether there were originally one or several languages, it is evident that the mother tongues of all that are now preserved existed at one period as closely connected and mutually influenced dialects, and this condition of things could only have arisen from the tribes who spoke them occupying a very circumscribed portion of the habitable world. We can clearly trace the influence of several dominant and widely diffused vocabularies, but after allowing for the common vocables thus disseminated in various directions, there is a large residuum of identical roots, forms of roots, duplicated and compound roots, and compounds of definitives and roots; the presence of which in all the outlying languages of the Old World can only be explained by each having inherited them as a portion of the primary vocabulary which its mother tongue brought from some ethnically central region.

It does not seem possible to go beyond this conclusion. Whether the earliest central languages were of independent or of common origin cannot be determined, because while proximity and mutual contact would result in an interchange and community of roots between originally different languages, a single language when isolated would separate into different dialects which would ultimately vary as much in their applications of the common



roots, as an alliance of assimilated vocabularies. In dialects of common descent the proportion of words that preserve their identity in root and meaning gradually decreases, while the proportion of those roots that have acquired a peculiar conventional meaning gradually increases. But in the life of languages a root that has wholly lost its primary signification and gained a different one, is equivalent to a new word. Hence in cognate dialects that are separated, alien vocabularies are constantly growing up, and they may at last come to be as distinct from each other as it is possible for human tongues to be. So that whether speech began with one language or with many, the kind and degree of divergence and resemblance between all the vocabularies of the world would, in the lapse of time, be the same. It is probable that all existing vocabularies are etymologically identical, and even that they have all been woven from a few primitive roots designating the most familiar objects, qualities and sensations, but it is true at the same time that the identity of the roots with few exceptions is not a living one even in the same language. It is on the capacity of the same root to receive almost endless changes in meaning and form, and thus to become in reality the progenitor of a succession of new generations of roots, that the growth of language depends. It hence becomes possible for the human mind and tongue to create a language from a few primary cries. These sounds, partly exclamatory and partly imitative, gradually undergo infinite variation and composition, and each modification becomes a new substantive sound or root, in the linguistic progress of the family, the tribe and the circle of tribes.

The following are illustrations from Semitico-Libyan. The sibilant, varying to the dental, is used for *Head* in several Zimbrian languages *hitoa*, *hizoa*, *mutua*, *mtu* &c. and in Fanti *ityil* (pl. *ityie*); for *Eye* in the same family with a different pref. *disu*, *lisu*, *litu* &c. and in Berber *thith*; for *Face* in Kosah with a third pref. *ubuso*; for *Hair* in simple or duplicated forms and with the labial final in Gara *shof*, Mahrah *shob*, Saumali *temo*, Bishari *tamo*, Agau *sifa*, *sisifa*, *tsabka*, *tsebega*; for *Beard* with similar forms in Zimbrian *dzevu*, *devu*, *debu* &c.; for *Hair* without the labial postf. in several East Zimbrian vocabularies *misisi*, *matiti* &c.; for *Mouth* with the labial final in Arabic *thum*, Hottentot *tub*, Felup *batum*,

Shangalla *suma*, and without the final in Mandingo *du*; for *Tongue* in Bishari *medabo* and Hottentot *tama*; for *Lip* in Sera-koli *shume*. The same series is found in words for *Finger* *isba*, *asabi* &c. Semitic, *tyaba* Fanti, *sat* Amharic, *tsat* Agau, and *Foot* *tsab*, *chafu*, *chami*, *chapi* &c. Gafat, *Gonga*, *Agau*. The simple and duplicated root is also *Ear* *ti*, *tu*, *ta*, *du*, &c., *Hand* *id*, *ad*, *tot*, *tata* &c. and *Foot* *ti*, *se*, *sa* &c.

In the corresponding Caucasian series we find for *Head* *dudi*, *ti*, *tchum*, *sab*; for *Eye* *te*; for *Hair* *toma*; for *Mouth* *suma*, *sumun*; for *Tongue* *sibi*, *zahbi*; for *Finger* *titi*; for *Hand* *tota*; and for *Foot* *shepe*, *zhape*, *shape*.

In the Scythic series we have besides the simple root the duplicated forms *shosha* Ugrian *Face*; *usu* Mong., *sus*, *ses*, *shosh* &c. Turkish *Hair*; *shus*, *tos* Ugrian *Mouth*; *tish* &c. Turkish *Tooth*; and forms with a labial final *soma* Hung., *shem* Ugrian *Head*; *sham*, *shem* &c. Ugr., *sima*, *saiwa*, &c. Sam. *Eye*; *asim* Turk. *Hair*; *shum* Fin *Mouth*; *tipe*, Sam., *tiwu* Ost. *Tooth*; *udam*, *oda*, *hute* &c. Sam., *te* Jap. *Hand*.

The Indo-European series has *stoma* Greek *Mouth*; *suban* Pers., *shiba* Afgh. *Tongue*; *sub* Slav. *Tooth*.

The sibilant or dental with a liquid final is *Tooth* in Semitic *sin* &c.; *Ear* in Semitic *zin*, *zan*, *zun*; *Lip* in Fulah, Sereres *tony*, *godon*; and *Ear* in Darf. *telo* and Mandingo *tulu*; *Hand* in Malagasy *tanana*; and *Foot* in Galla *tana*, Woloff *tank*, Saumali *adin* and Bagnon *guidine*.

Caucasian has *sir* *Head*, *taalo* *Hand*, *tul-we* *Finger*, *tle* *Foot* *sil*, *zul-we* &c. *Tooth*, *tzindi* *Nose*.

Indo-European has for *Head* *sir*, *Tooth* *zan*, *dant* &c., *Tongue* *zange* &c.

Scythic has for *Head*, *dil*, *dul* &c., *Tooth* *til*, *del*, *Face* *syn*, *syrai*, *zura* &c., *Eye* *sin*, *sil* &c.; *Ear* *shen*, *shun* Tung., *Hand* *dol*, *tol* *Finger* *tul*, *tyl*, *dal* &c.

Dravirian has for *Head* *senni*, *tale* &c., for *Hand* *tol*, for *Foot* *adi*, *orri*, *adu-gu*.

In the liquid series we find in Semitico-African for *Head* *alo*, *our*, *or*, *eri*, *ru*; for *Eye* *ain*, *aire*, *il*, *iri*, &c.; for *Hair* *alu*, *iru*, *riri*, *ili*, &c.; for *Mouth* *lah*, *nua*, *enu*; for *Tooth* *reir*, *hauri*; for *Tongue* *arah*; for *Ear* *ilai*, *iroi*, *ru*, *noa*; for *Finger* *ala*, *num* &c.; for *Hand* *nan*, *nen*; for *Foot* *noa*.

These simple and double forms correspond with the Caucasian na, la, ala *Face*; ena, nina, nin *Tongue*; ain, in, lai, lar &c. *Ear*; and rori *Foot*;—with the Indo-European rin *Nose*; ohr, ur *Ear*;—with the Ugrian ol, er, olo, ulu, ruh *Head*; nore, nanu *Face*; nun, lele, ilet &c. *Eye*; lelu, ein &c. *Beard*; ul, lul, an, nal &c. *Mouth*; urul *Lip*; orr, nyr, any &c. *Nose*; illa *Ear*; al, ol, ola, ili, nala, &c. *Hand*; lyl, lal, ora, ngoi, hga &c. *Foot*.

The liquid with a labial final is found in Darfur for *Eye* nume; in Zimbrian for *Mouth* lumu, romo; in Galla and Kosah for *Lip* luf-luf, lebi; in Malagasy for *Tooth* nify; for *Tongue* in Danakil aruba, Saumali arub, Galla arubni; Woloff lamin and Bagnon haleb; for *Eye* in Bagnon guinif, Sereres nof, Woloff nop, Serakoli ai-ndof, Hott. t"naum.

The corresponding series is almost absent in Caucasian, Indo-European and Scythic which prefer liquid finals for liquid roots. Caucasian has nap, napa *Face*, nem *Tongue*, lemba, limba, lumbha *Ear*. Scythic has wa-nim, ny-rim *Face*; namo *Mouth*.

The liquid with a sibilant final is *Head* in Semitic eresh, ras, rosh, rus; *Tongue* in Semitic lashim, lishin, lisan, halishi Hausa, melas Amh. Tigre, arat Galla.

Similar forms occur in Caucasian for *Hair*, ras;—in Indo-European for *Mouth*, rot, ert; and *Nose* nas, noss, ris;—and in Scythic for *Head* resz, arsem, nash; *Face* rosa, rozha, ortza; *Hair* yorsi, ersi, nosu &c.; *Eye* anysha, elisa, ilet.

In Dravirian the principal series are the labial and guttural. The labial forms for *Head* mudd, mande, are North Indian, mud, mun, Scythic and African, mudah Saumali, mata Saum. Galla. Those for *Hair* mir, mayir, are Caucasian. Those for *Mouth* vayi, bayi &c. are Scythic, but with the meanings *Head* paya, fei &c. *Face* pai, *Tooth* pai. Those for *Tooth* palla, pallu are Ugrian, pane &c., but the same form is common in Ugrian and Caucasian with other meanings, *Ear* &c. Those for *Nose*, muku, have the Scythic root pu, bu, but in Scythic the guttural final is absent. Those for *Finger* veral, birlu, are Caucasian, palik (the slender form ver, bir, being common with other meanings in Cauc.); Indo-European perst Slav.; Scythic parne, borne Ugr., bar-mek Turk. (the slender form pil, bel &c. being used for *Foot*, *Ear* &c.); and Semitico-African pirure Suah., baram Woloff, faratschi Hausa.

(The forms *bir*, *bar*, *par* occur as the root in words for *Hand*.)

The Kol terms for *Head* and *Hair* *bu*, *ub* &c. are Scythic (*pa*, *bui* &c. Fin. Ugr. *Head*; *up*, *ob* &c. Ugr. Sam. *Hair*); and Libyan *ap* Eg., *amo* Saum. *Head*, *emu* Avekwom, *umbo* Mudjanna *Hair*.

In the guttural series *ku* *Head* is Scythic,—og Ugr., oike Fin.; *kuzha*, *kuda* *Hair* is Caucasian; *kan* *Eye* is Chinese and Turkish; *kuli* *Tooth* is the Scythic *kul*, *gol*, *kur*, &c. &c. *Head*, *Beard* (*kul-ye* Yenisei.), *mouth* (*kur. go* Ugr.) *Ear* (*kul*, *gul*, *kor* &c.), *Tongue*, *Hand*,—in the slender form *ker* (also Scythic) it is *Tooth* in Caucasian; *kadu*, *kivi*, *kimi* &c. *Ear* is Scythic, *ku*, *kuma*, *kyrwa* &c.; and Indo-European *ugo* Slav.; *kai*, *kayi* *Hand* is Scythic, *kal*, *kasi*, *kesi* &c., *Cauc. kuer* &c. and Libyan *eka*, *kuna* &c.; *kazh*, *kal* *Foot* (the same root) is Scythic, *kasa* Yenisei., *kul* Mong &c., Caucasian *kash*, *kassi*, &c. and Libyan *kula*, *gar* &c..

In Dravirian the liquid series is only represented by the Tamil *eyiru* *Tooth* (*yir*, *yor*, *Head* Ugr., *yir-si* *Hair* Ugr., *yul* *Mouth* Ugr., *yel-uth* *Ear*, Kamsch.); the Telugu *yelu* *Finger*; the Telugu *noru* *Mouth* (a common Scythic form, *nal* *Mouth* Sam., *onnor* *Tongue* Yukahiri, *nol* *Nose* Ugr., *nore* *Face* Ugr. &c.); the Kurgi *oroma* and Gond *robong* *Hair* (which resemble the African forms with a labial final); and the common term for *Tongue* *naku*. The root *na* is used for *Tongue* both in Scythic and Caucasian languages, but not with the guttural postf. Similar forms occur with other applications, *nago* Ugr., *nyako* Fin. *Face*, *nuyak* Chukchi *Hair*, *enku* Koriak, *onyok-to*, *nig-sha* Tungus. *Nose*; *lege*, *hanka*, *andika* Andi *Ear* (comp. the Telugu *nadike*). Semitico-African has *allok* *Tongue* Felup, *uluk* *Ear* Kensy, *uilge* *Ear* Tumali, *Koldagi*, *iluk* *Tooth* Saumali, Galla.\*

The series, as a whole, is Scythic, with a few special affinities to Caucasian.

\* Having lately received a copy of Lieutenant Leech's Brahui vocabulary I add a more complete list of the names of the parts of the body than I previously had access to. *Head* *katumb*; if *ka* be prefixal (comp. *kalakh* *cheek*) it is Georgian *tchum* *head*, *toma* *hair*. *Hair* *pish-kou*; *besh* Misjejian. *Beard* *rish*; *ras* *Hair* Lesgian, *yirsi* &c. Ugr. *Eye* *khan*; *Drav. Face* *mon*; *Hindi* &c., *mande* *head* Kurgi. *Lip* *ba*; *Japanese* *fa*. *Nose* *ba-mus*; *Drav. muku*, *Japanese* *fa-na*, *Lesgian* *mushush*. *Tongue* *duvi*; *davo* Bihari; *tub*, *thum*, *du*, *mouth*, *Semitico-African*, *davada* *cheek* *Telugu*. *Ear*, *khaff*; *Drav. (kavi* *Toda* &c. *Hand*, *du* (the same root as in *duvi* *tongue*); *tota* *Misjejian*, *tot* *Coptic*, *uda* *Samoiede*. *Foot* *nath*; *Lesgian* *nats* *Finger*. This vocabulary appears to be equally archaic with the Dravirian and Australian, to have the same primitive relation to the Scythic, and to have some specific Caucasian and Caucaso-Libyan affinities.

## - HEAD, HAIR.

The terms for head and hair being much interchanged in general glossology I place them together.

Eleven vocables are found in the Dravirian languages,—senni, tali, mudi, mir or mayir, kuzh or kud, orama, chuti, ventruka, ku, buho and ub.

Of these, two are of Tibeto-Ultraindian origin. They are confined to the languages bordering on the Ganges. All the others are archaic, and all have Scythic, chiefly Ugrian, affinities. The chain of affinity is various,—Ugrian, Iranian, North Indian, Australian and Asonesian; Ugrian, Caucasian; Yeniseian; Ugrian; Ugrian, Sindhi, Tatar, (Malagasy, Asonesian); Caucasian (Koriak, Sanskrit) &c.

Ku, "head", is found only in Uraon and Male, where it appears to be of comparatively modern Ultraindian derivation, (Naga). The root is Tibetan, Ugrian, &c. The Asonesian varieties, like the N. Dravirian, are Tibetan through Ultraindian.

The Kol term buho, bu, "head", may also be of Tibeto-Ultraindian derivation, but as another variety of the root, used for "hair", is archaic and as the aspirate of buho appears to have been transmitted as a guttural to Asonesia, where the term is very common, there is some doubt as to this. Probably the form buko or buho was an early Draviro-Gangetic variety of the Tibeto-Ultraindian pu, which was carried to the islands by the Gangetico-Polynesian current.

All the other terms are archaic. Mudi "head" is Hindi and Australian on the one side, and Scythic on the other. The full form, slightly modified, remains in the nasalised Gangetic puring (Dhimal). Other varieties are common to Australian, Papuanesian and Malayu-Polynesian languages with Irano-Indian and Ugrian. The root must have prevailed in all these forms in the Iranian province, not only in its Sanskritic but in the older Draviro-Australian and still older proto-Scythic or proto-Dravirian eras. The various Asonesian terms show that the root was the most common in the North Dravirian or Gangetic province. In the south similar forms are only found in Toda and Kurgi, and in Malayalam, the last using this vocable for "hair." The Toda and Kurgi forms appear to be equally archaic with the Australian, which exhibit a si-

milar striking identity with Irano-Indian varieties. The Australian wadi, wari, New Caledonian mari, must, like the other Asonesian forms of the root, belong to the most archaic era of Asonesian glossology, yet the form is the same as the Kashmiri wad (Zend wed). The Peel River bura corresponds with the Bengali mur, Dhimal puring, Todava and Hinduvi mud, [so mun Hind., umun Lobo of New Guinea], to which the Malagasy-Polynesian vulu, fulu, bulu "hair" is also allied. The original is the Scythic muri Korea, murit Tung., mui Turk., bui Ugrian. The forms in a are also Scythic,—Ugrian wari, waras, awa &c. The medial u and final i of the Scythic forms is preserved in the Dhimal puring (Korea muri) only, and the i in the North Australian and New Caledonian. The form mud, mun, mande (Hind., Tod., Kurg.) is also current in Samoiede as a term for "beard", mudut, munuche, mundu. In Tungusian it is applied to the "mouth" amun. The forms in t, matha, mata, are allied to the Sanskrit mastaka, which appears to be composed of two Scythic roots, mas (comp. mas "hair" Armenian, mast, "hair" Kashmiri, bas, bash, pus &c. "head" Turkish, bus "hair" Fazoglo, iwusa "hair" Fin, usu "hair" Tungus.), and takai ("head" Yeniseian, tuka "hair" Fin &c.)

An allied Tamil and Toda word for hair, mir, mayir, is probably a more archaic form. It is a Caucasian variety, and belongs to a dialect that shows frequent affinities with Dravirian, the Andi. In the Scythic languages the form war is found for "head" and "hair". The slender forms bir, pil, wil, pin are current for "lip," "tooth", "ear" and "foot." In Caucasian ber, were, occurs for "face," "eye," "beard," pil, piri for "mouth," and mir, mer, mar for "nose".

The preceding term is so common along the whole glossarial band of Irania, North India and Asonesia, that it appears to be connected with the Scythic or proto-Scythic movements which gave their special Scythic character to the Draviro-Australian and Indo-European formations. The Tamil and Toda variety probably marks an older Caucaso-Dravirian current, of which this remnant was left in the south of the Indian Peninsula.

The Tamil term for "head," senni, is probably of equal antiquity. It is Ugrian, Celtic, Yeniseian, &c. Another variety of the

same root is Scythic, Indo-European, Semitico-Libyan, &c. The same form is used for "face" in Turkish *syn*, "eye" in Ugrian *sin*, "mouth" in Fin *sun*, and "ear" in Tungus. *shen shun*.

The most common Dravirian term for "head", *tale*—found in Male as the word for "hair"—is also archaic. It is Tatar. Some rare examples also occur in Asonesia. Besides the Tungusian and Mongolian forms for "head", similar forms occur in Scythic with other meanings. In Turkish it signifies "tooth" (*til, tel, del* &c), and it is an archaic and widely spread term for "hand" *udol, ton*, and "finger", *tul, tol, dal* &c. It is found in Dravirian also as a term for "hand" *tol* and in Caucasian as a term for "finger", "hand", "foot", and "eye" *tul-we, tle, taalo, toli* &c.

A Tamil (anc.), Karnataka (anc.) and Tuluva word for "hair" *kuzh, kud*, is Sanskrit, Caucasian and Koriak. The Dravirian forms resemble the Caucasian most closely. In Scythic it is applied to the "eye" *kus* &c., "mouth" *agus, kuzi*, "nose" *kase*, &c. "ear" *kus*.

Another archaic and comparatively rare term for "hair", *ram, lom, rob, ran, lang* (with different augments) is common to Kurgi, Gond, Bengali, Roti and Wiradurei. The ultimate root *la, ra* &c. has numerous affinities.

The Kol *ub, up*, "hair" appears to be also archaic. It is Ugrian, and an allied form is found in Egyptian. All these forms are ultimately only varieties of the root *bu, pu* &c. already noticed.

The Uraon *chuti* is Sindhi. The root is Ugrian.

#### Head (a.)

senni	Tamil anc.
sheny	Ugr. (Wolg.)
shem	"
ar-sem	" (Ost.)
soma	" (Hung.)
ser	Ossetic, Pashtu
sar	Pashtu, Hindi
shira	Sansk.
ka-sira	Japan
sheier	Ugrian
shen	Celtic (Erse)
(hair) shaar	Arabic

”	sn	Egyptian
”	shnin	Kasia
”	song	Newar
”	chang	Sunwar
”	sha, ta	Tibet
”	unsn	Mongol
”	asim	Turkish
”	chinyajan	Yeneseian
”	chunajan	”
”	shim	Tobi

The sibilant and aspirate root, in these and various other forms—including the reduplicated sis, sus &c—is very common both for “head” and “hair” in all the principal formations, Chinese, Scythic, Tibeto-Ultraindian, Iranian, and Semitico-Libyan. The Tamil term appears to be archaic. It resembles the Yeniseian chin, Chinese shin, and the vowel connects it more immediately with the Ugrian sem, and the Ossetic and Pashtu ser.

#### Head (b.)

	talei	Tamil
	tala	Mal., Telug., Gond
	tale	Karn.
	tare	Tuluv.
(hair)	tali	Male
	mi talu	Magar
	dil	Tungusian*
	dul	”
	del	”
	deli	”
	tolo-chai	Mongol
	tari-gun	”
	tul-gai	”
	thilu	Rotuma
(hair)	tulah	Meri

The closest to the Dravirian of the Scythic terms is the Mongol tari. The Indonesian tulah, Rotuma thilu, appear to be Tungusian. The root is probably the still more widely spread ta, tha, tu.

\* The same root is more frequently applied to *Toxovum* in Scythic (til, dil, tel tul, dela.)



*Head (c.)*

mudd	Todava
(hair) tala-mudi	Malayalam
mande	Kurgi
mud	Hind
mun	"
mur	Bengali
wad	Kashmiri
wedege	Zend
(hair) bala	Sanskrit
" bal	Hind.
" war	Sindhi
" wal	Kashm.
" wed	"
" madam	Bodo
puring	Dhimal
pala	Sirawi
(hair) mala	Viti
barram	Mille
wil	Aru
umun	Lobo
balang	Australian (Bathurst)
walang	" (Kamilarai)
wari	" (Trusan)
iwadi	" (Limb. Kar.)
(hair) mbal, angbal, ji-mara	N. Aust.
" di-vara	Sydney
mari	New Caledonia
balu	" "
bau	Toro, Vate
bail	Malikolo
bura	Peel Riv.
(hair) wuran	Kamilarai
" uran	Wiradurei
" mori	Bathurst
" morye	Endeavour Riv.
kabara	Sydney, Liverpool
kanan	Muruya

[kapala	Sanskrit (Indonesian)*
kobbel	Kamschatkan]
uwari	Ugrian, (Sam.)
awa	" "
pa	" (Fin)
pra	" (Wolg.)
pank	" (Wog.)
panga	"
penke	"
pen	Eusk., Celtic
(hair) waras	Ugrian (Ostiak)
" muri	Korea
merit	Tongus.
bui	Ugr.
(hair) mui	Turk.
emu	Avekwom
muru	Makua
(hair) vulu	Malagasy
" fulu	Pol.
" bulu	Indon. (com.)
* matha	Bengali
matho	Sindhi
mata	Galla
matha	Saumali
muda	"
mati	Korea
bash, pash, pus &c†	Turkish
pisha	Tiberkad
bacha	Vanikoro
basa-ine	Malikolo

\* In the Australian kabara, kapan, the ka is probably a prefixed definitive and the root bara, pan. In the Sanskrit (and derivative Indonesian) kapala the root may be the Indo-European kap, kop, which appears with a different postfix in cap-ut, hof-d, kuw-ud chaub-it &c. The Latin capillus, villus, pilus "hair" favours the idea that pala is a root in kapala also. The true analysis may be kap-pala, kap-pillus. The labio-liquid root occurs in Slavonic also wel-is-ok, vlas, blas &c "hair." Kop, kap appears itself to be one of the Ugrian forms of the guttural root (e). Comp. ugom Ostiak (so coma "hair" Latin). In the Indo-European branch of the Scythico-Iranian alliance the root is generally applied to Eye (oko, og &c.) and the exceptional Latin oculus appears to preserve the postfix of another Ugrian form ugol, oklu.

† Comp. with the meaning *Face*, facies, face, visage; the Eusk. bisaja, Breton wisaih, Romanic wiss &c; in which the same root occurs.

pathe-na-nadi	E. Tasmania
(forehead) mat	Torres St. (Erub.)
<i>Head (d.)</i>	[See <i>Hair g.</i> ]
bu	Kol
buho, bohu	"
phu	Mikir
bong	Singfu
buhu, poko, poho	Indonesian, Polynesian

The root is very common in Asonesia, particularly as applied to "hair." The k of the prevalent Asonesian bok, wok &c, "hair", appears to be referable to the aspirate of the Kol form.

<i>Head (e.)</i>	
kuh	Uraon
kupe	Male
go	Tibet, Tungus.
ta-ko	Gyarung, Naga
gok-ti	Takpa
kok	Manipuri D.
kui	"
kho	Karen
koi	Nancowry, B́nua
koik	Torres St. (Masid.) "scull"
guiku	Kowrarega, "forehead"
ku	Balignini

The root is common in Ultraindian and Asonesian vocabularies.

ka	Australian (Mudgee)
ka	Circassian
akha	"
akai	Berber
kai	Hausa
ikhf	Berber
og	Ugrian (Ost.)
uk	"
ugol	"
ugom	"
oklu	"

<i>Hair (a.)</i>	
kuzhal	Tam. anc.

kuda <u>lu</u>	Karn. mod., Tulu.
[k <u>hosu</u>	Karen
k <u>osen</u>	N. Tank.
k <u>acho</u>	Naga]
kit <u>ang</u>	Australian (Kam. Syd.)
git <u>ang</u>	„ (Liverpool)
gi'an	„ (Bathurst)
kide	Tasmania
ketha- <i>na</i>	„
kes <u>ha</u>	Sansk.
kass <u>a</u>	Lithuanian
kazh-eresh	Misj.
chaz	Circ.
kod <u>i</u>	Lesg.
ketschug <u>ui</u>	Koriak
kiti-gir	„
[(head) koltsch	Kamch]
gash <u>i</u>	Hausa

The Australian and Tasmanian variety as well the Sanskrit are connected by the vowel with the Koriak. The broad Dravirian form preserves the vowel of the Ugrian, Tibeto-Ultrindian and Ultraindo-Asonesian form of the ultimate root *ku*, *ug* &c. ("head"). It appears to be connected with the Caucasian form.

*Hair (b.)*

mir	Toda
mayir	Tam. mod.
[tala-mudi	Mal.]
wil	Aru
pelilo-gueni	Tasmanian
par-ba, par-eata	„
purari	„
[? min	Chepang]
mier	Lesgian (Andi.)
maar	„
pil <u>us</u>	Lat.
wlas	Scl.

The Tamil *mayir* and Lesgian *maar*, which are evidently related, appear to show that the full form preserved the broad vowel which

is found in the more widely prevalent *mur, mar &c.* (See *Head (c).*)

*Hair (c.)*

orama	Kurgi*
robong	Gond
lom	Bengali
[uran	Goold I.
kiaram	Wiradurei (See <i>Head c.</i> )
e-nom-braem	Waigiu
nabm	Vate
niem	Tana
(head) langan	Roti
„ lungga	Buol
„ lunggongo	Goront.
[rambut	Indonesian (Mal. &c), but ram is probably a def. pref.; but, buk is a common root (See <i>Head</i> (d.)]

The liquid alone in various forms, *la, lu, ulu, ra, ruh, ira &c* is a common archaic root, N. E. Asian, Scythic, Indo-European, Asonesian.

*Hair (d.)*

ventruka      Telugu

*Hair (e.)*

chutti      Uraon  
choti      Sindhi

The root is common *chu, su &c.*

*Hair (f.)*

ub      Kol  
up      „  
pu      Tibet, Horpa, Takpa  
mui      Manyak  
upat      Ostiak  
opta      „  
up, ip      Fin  
bo, mo      Chinese  
pipe      Tasmania

\* Comp. *oluwa* "head", Singhal. *lobu* "forehead", Fin, *lob* "forehead", Slavonic and the common Slavonic term for "head" *golowa, glawa &c*, Latin *calva*, Celtic *gal*. The guttural is probably the common Asiatic *go, ka &c*, "head," and *go-low* may be a compound of this root and *loha* or *lowa*, in which the root is the widely spread *lu, ulu, olo &c*, and *ba, wa* the common Ugrian post-fix. But the root may be *golo* (Ugr. *u-gol*).

(head) ap Egyptian  
 " api "

The ultimate root is the same as bu, pu &c, "head," and the Kol ub may be merely a variation of bu [See *Head* (d)].

With reference to the vocables given under *Head* c and d and *Hair* f, it should be remarked that the forms in mt, ms, bs, &c. are more commonly used for *face*, and *eye* than for *head*. The labial root by itself and with the same range of finals -t, -d, -n, -r, -l, -th, -s, -k, -g, is also applied to *Face*, *Cheek*, *Mouth*, *Lip*, *Nose* and *Ear*. Examples of the simple labial root,—*Head*, pa, awa Ugrian, ap Egypt, bu Kol, phu Mikir; *Hair*, bo, mo Chin., up, ip Ugrian, pu Tib. &c., ub, up Kol; *Cheek*, ma Anam, pa Burm., fi-fi Malag. (pi-pi, pa-pa &c., Ason.); *Mouth*, af Tigre, ma Shanggalla, va-va Malag. (fa-fa, vi-vi &c. Ason.); *Lip*, mui Anam (bi-bi, wi-wi, &c. Ason.); *Nose*, pi, phi &c. Chin, pui, pue Sam., uf Galla, mu Besisi; *Ear*, mi-mi Japan; *Eye*, mey Japan, ma' Chin., wa Dalla, me Tounghlu, mhe Bongju, mi Singfu.

For *Face* Chinese has mien, min, men, bin, ben, (comp. *Head*, Turkish benys, Ost. wanim, Singfu mañ, Hind. munh, Ugr. Celt. Eusk. pen, Hind. Beng &c. mun, mud, mur; *Hair*, min Chepang; *Cheek* ping Milchanang, mingmo Abor, minong Hailam, pinga Kayan, ping ping Iloko, weng, Kissa, fi-fi Malag., pipi Indon.; *Mouth*, mieng Anam, minoe Nicobar; *Lip*, bir Japan, pin-yaing Yenisei, minu Nicob. &c.); Fin muoto, Japan omote, Ugr. wonda, Kashm. buth, Anam mat, Pol. mata (comp. *Head* mata, muda, &c. &c. common; *Mouth*, mhutu, musu, mocha &c.; *Nose*, mondu Turk., munta Ho); Turkish bit, pit, mes &c., Simang mid, Anam mat, Celtic wis &c., Eusk. bisaja, (comp. *Nose* pi' &c. Chin., pit Torres St., petyni Aino; *Lip* pite Sam., mit Torres St., pedivi Telinga; *Head* bash, pus &c. Turk., api Maram; *Hairobit*, upat Ugr. ipt, apt, opt Sam., mas Arm. &c.); Dravirian mukhu, muka, mokam &c. Indon. muka (comp. *Cheek* bucca, бага, bhog &c.; *Mouth* mukya Pali, mocha Kol, bocca, foco, bouche &c. Indo-Eur., pak Siam; *Nose*, muku Drav., muk Simang, boka Woloff; *Lip*, meka Bongju, amga Tungus., makub Tib.; *Head*, abak Pont. wokbok N. Aust.; *Hair* bok &c. Ultraindo-Ason).

For *Mouth* Scythic has aman, amun-yak, Indo-Eur. mund, munt, mouth, mutte, munnur, &c.; Kol mocha, Sindhi wat, Kambojan

mat; muru Limbu, wullao Gond, mur Manipuri D., mamun Kap-wi, mieng Anam, abong Lepcha, pan Mon, ban Simang, peng Besis, bango Lamp., Komr., abana Sumba, manga, mangai Pol.; mothong Chepang, mhutu Newar, mathu Maram; Asonesian, mothong Meri, montong Banj. The labio-guttural form is also Scythic—*amga*, Tung.; Indo-Eur.,—Sanskrit, *mukh*, *mukya*, Bengali *bak-tra*, Latin *faux* (*faucis*), “the jaws,” *bucca* “the hollow part of the cheek”, Span. *foco*, Port. *bocca*, Fr. *bouche*; and Ultra-Indian,—pak Khaunti, pak-obu Kar., m’kha Kyan, awkang Silong. The Malagasy *mulu*, *muluts*, *mulu-buru* &c. (and Asonesian *mlut*) may either have the labial root or the liquid. In the latter case it is probably a derivative from the Zimbian *mlumu*, *umlumo*, *mulumo* &c. The *l* root is Scythic *ul*, *lut* &c. The Zimbian *lumu* resembles the Asonesian *lawe*, *lama lida*, Kumi *lbaung*, Limbu *leba*, Abor *nepang*, Sansk. *lapanam*. The same root is used for *Lip*,—Galla *luf-luf*, Kosah *lebi*, Hind. *lab*, Lat. *labium*, *labrum*, Germ. *lippe*, Eng. *lip* &c. The ultimate labial root is used for *Mouth* in Scythic,—*am*, *im*, *um*, &c. Ugr., *ama* Mong.; Semitic-Libyan,—*ma* Shangalla, *afa* Dankali, *af* Tigre, of Saumali; Ultra-Indian,—*ba* Kayan. The duplicated labial root is common,—*mefo* Samoiede, *momo* Suahe li, *vava*, *vave*, Malagasy (in Asonesia *fafa*, *baba*, *bibi*, *vivi*, *bafa*, *wuwa*, *buwah*, *bua* &c. &c.) The Dravirian *bayi*, *vaya*, *bai*, appears to be connected with the Ugrian radical forms.

Most of the other preceding terms are also applied to *Lip*, *Cheek*, *Nose*, *Eye* in different vocabularies. Thus for *Lip* Scythic has *amun*, *mon*, *emga*, *amga*, *pite*; Dravirian *pedivi*, Erub *mit*, Anam, *mui*, Japan *bir*, Indonesian *bibir*, *hibi*, *wiwi* &c., Australian *mundu*, *mudol*, *wiling*, Malagasy *mulutu* &c., Nicobar *minu*, *manoey*; and for *Cheek*, Malagasy has *fi-fi* (Asones. *pipi*, *papa* &c.); Burman *pa*, Anam *ma*, Latin *bucca*, Galla *boko*, Kaili *baga*, Erub *bag*, Latin *mala*, Indones *pili*, *plis*, *paling*, *banga*, *bangi*, *pingi* &c. For *Nose* *phi*, *piti*, *pit* &c. and *mu*, *mui*, *burn*, *mur*, *mondu*, *murh*, *muku* &c. are common. The Chinese *phi*, *pi*, &c. corresponds with the Samoiede *pite lip*, Aino *petyni nose*, and the Torres St. *pite*, *piti*, *pichi nose*, and *mit lip*. The Samoiede *pui*, *pue*, *puiya*, *piya* &c. corresponds with the Anam *mui*, Nancowry *moi*, *nose*.

The whole series is reproduced in the vocabulary for *Eye*, 1,

ma, wi, mi &c. ; 2, mil ; 3, *ma*-bara, *nu*-bra &c ; 4, mis, mas, mit, met, mat, mad, mot &c ; 5, mik mek, mak, &c. &c. [See EYE.]

Making the highest allowance for accidental coincidences it is clear that the same roots, the same phonetic forms of roots, and the same combinations of root and postfix, are found with variable meanings not only in the different languages of the same family, but in different families. When the various Aso-African families are compared with reference to their vocabularies of primary words, they appear as if they were all dialects of one mother tongue and it does not seem possible to account for phenomena so purely dialectic without concluding that each language ascends, through various phases to an ultimate monosyllabic condition, and that, at some period remote even in the purely monosyllabic era, their protoplasts were, in reality, dialects of one language. The roots which we have been considering must originally have been current in a single family, before they became dispersed amongst many, and by the separation of these received various dialectic applications. Without such original linguistic concentration or unity, followed by such division and dispersion, the facts cannot be reconciled, for the mere dissemination of the words of dominant tribes in ages when the Old World was peopled in all its principal divisions could not account for an agreement so radical, so universal and so complex. It will explain many of the coincidences, but nothing short of the admission of one primary vocabulary having been preserved in separated families and been dialectically modified in its applications, can explain the whole.

Amongst the secondary dispersions and diffusions it is clear that the Scythic or proto-Scythic is by far the most important, as it was universal. It rests on the Chinese or monosyllabic stage of vocables, and it enters that in which a definitive became attached to the roots. Many of its peculiar forms and combinations are found in all the southern and western provinces, and it seems to be a necessary inference that before the Australian formation was carried to Asonesia, Semitico-Libyan to Africa, or the Euskarian to Europe, they were comprised along with the archaic Caucasian, Tibetan, Scythic and Indo-European, in a comparatively narrow Asiatic geographical circle. The only remaining formations, the Zimbian and American, are expansions and developments of proto-Scythic dialects.



## EYE.

The prevalent Dravirian term is *kan*, (also *Brahui*) *kanu*, &c. It is found in *Polynesian*, *kano*. On the continent it is *Chinese* *gan*, *Thochu kan*. It is evidently one of the primary vocables of the Dravirian formation, and as the form is a rare one it illustrates the special Chinese connection of the basis vocabulary, as shown by the pronouns.

The root is more remotely connected with the *Yukahiri angoha*, *Scythic kus*, *gus*, *kas-ak kar-ak*, *osha*, &c, and *Indo-European ak*, *ank*, *agn*, *akshi*, *akis*, *oculis*, *okko*, *oko*, *augo*, *auge*, *oog*, *eye*. The corresponding *Scythic kar* &c although found as "eye" in *Turkish* only is a common *Scythic* root with other meanings. In *Fin* and *Aino* it is applied to "hair," and the original is probably to be found in the *Ugrian* and *Yeniseian kol*, *gol*. It is a common term for "beard" *agan Ostiak* (the *Chinese* and *Dravirian* form for "eye") *gar*, *gor*, *gur*, *ger*, *Tung. kul*, *koro Yenisei*; "mouth" *kur*, *Ugr.*, *khan*, *Turk.* (the *Drav.* form for "eye"); "ear" *kor*, *kyr Fin*, *kolo*, *kul* &c, *Yenisei*; "hand" *kal*, *kol*, *gar*; "foot" *kol*, *kur*, &c.

The *Australian mir*, *mil*, corresponds in form with the *Dravirian mir* "hair," and the ultimate source was probably a slender form of the *Scythic labio-liquid* root for "head." *Scythic* no longer retains slender forms with that meaning, but it has them as words for "lip," "tooth," "ear," and "foot" while *Caucasian* has them for "face," "eye," "mouth," "beard," and "nose" (*mir*, *mer*, *ber*, *bir*, *pil*, *wil*).

The form *dala*, *dana*, is not now current in *Asia* as a word for "eye" save in *Caucasian*. It corresponds with the *Dravirian tala* "head" *tol* "hand," with the *Scythic tala*, *dil* &c. "head," and the similar words for "tooth," "hand" and "finger," in *Scythic*; for "eye" *toli* (*Mingr. Laz.*) "finger", "hand": and "foot" in *Caucasian*; and for "tooth" in *Indo-European*.

The *Kol* dialects have the full *Tibeto-Ultraindian met*, *med*, the vowel being that of the *Gyarung*, *Burman*, *Sĩmang* and *Bĩnua* forms, and not the common *a* of *mat*, *mak* &c. It should be remarked that this second and very widely spread root is also *Chinese* (*mok*, *mă'*.)

Of the two terms prevalent in the proper *Dravirian* vocabula-

ries, the second, which is only found in Tamil (anc.), is probably of Sanskritic derivation, *nattam* Tam., *netram* Sansk. But as the root occurs without the *r* in N.E. Asian and African languages it may possibly be archaic in Dravirian. It belongs to the proto-Scythic basis of Sanskrit (comp. *Caucas. na, nne, la, ala, Kamschat. lela, elad. elath, nanin, Koriak ilet, lalat, elifa, lilagin, Hind. nain, Arab aayn, Nubian nget, enes-ik, ma-inka, Galla itsha, Danakil enti, Malagasy-Asones. inty "see," Malay libat "see," Binua nihat "eye."* The N. W. Australian *ira, Mudjee lun, Torres St. ir, il, of ir-kep Erub, il-kap Murray I. (kap being a separate root, dana-kap "eye" Port Lihou, ii-kab "temples" Erub)* with the Nilotic *il, ilau Saum., ila-tua Galla, aire Tigre, ili-kumah Shangallah, are Fazoglo, yel Agau, to-lele Bishari, ile Falasha, are still more faithful to the archaic form preserved in N. E. Asia, and, like a large proportion of the vocables of the Nilotic province and Africa generally on one side and of the Draviro-Asonesian on the other, are referable to the earlier eras of the Scythic or proto-Scythic movements on the southern regions of the Old World. The same root is common as a term for "head."*

The prevalent Australian term *mil, mir, mi, me, ma*, may be connected with the Tibeto-Ultraindian *mik, mit, mid, mni, mi*, (*Takpa melong*), but the Caucasian *ber, beer, ber-ik, ber-gish, ber-g, bera-ka*, suggests a different line of connection. The Australian *mebarai, mibare, mabara* appear either to be reduplications or to postfix the same root in one of its other and more prevalent applications "head," "face." Comp. *ga, ka, ka-bara, bura, balang, wari, iwadi, &c, "head"*. So in *Mille baram, New Caledonia balu &c, New Hebrides bau, bail &c*. The same root is very common as a term for "hair" [See HEAD, HAIR]. In *Menado (Celebes)* it is used for "eye," *waren*, and in *Tasmania* we find *e-verai, nu-bera, nu-bra, le-pena, el-pina, ma-meri-ka, namuru-k, pola-to-ola*. *Torres St. has poni "eye-ball,"* and in some compounds "eye".

In N. E. Australia and *Torres St. dana, daan, dala, dana-kah* occur as words for "eye." The only other Asonesian example of a similar term which I have remarked is the *Loyalty I. (Lifu) tala-mek "face," ala-mek "eye,"* in which *mek* is the common term for "eye," "face," already referred to. Comp. the *Binua tam-*

langop, Batan dangoy, Kayan inang, Buol lan-ji, Tojo ling-kina, Ende rangia, all words for "face," and the Naga than "face," Dravirian tala &c. "head."

## EAR.

The root, ka, ki, ke, che, se, is so common in different formations that it is difficult to indicate any special affinities. It is evident from its taking the Dravirian postfixes *du, da, mi, vi*, in different dialects, that the pure root belongs to the native basis glossary. As it is found with other postfixes in Scythic &c, it appears to be proto-Scythic in Dravirian. A variety of the same root is prevalent in Australian, *kala, kura, kure, kuru* &c. This resembles Sanskrit, Hindi, Georgian Scythic and Galla forms. It was probably the North Dravirian or Gangetic form, and later of importation into India than the South Dravirian, the Scythic postfix appearing to be concentered and to have accompanied the vocable in all its wanderings.

There is a second archaic Asonesian term, *pol Binua, pil Torres St., bina, bena, bidne, &c.* Australian, *pel-vera-ta, ti-bera-ti* Tasm., which is N. E. Asian, *wilugi, wilyt* &c. (Koriak); Ugrian, *pel, pil, pul, bol* &c; and Hindi, *bol*.

The Kol *lutur* is a rare term. It is probably archaic and proto-Scythic,—*yeluth, ilyud* Kamsch.

<i>kadu</i>	Tam. mod.
<i>kada</i>	Mal.
<i>kavi</i>	Tod. Gong
<i>kivi</i>	Kar.
<i>kimi</i>	"
<i>kemi</i>	Kurg.
<i>kebi</i>	Tulut
<i>chevi</i>	Telug.
<i>sevi</i>	Tam. anc.
<i>khetway</i>	Male (double postf.)
<i>khebda</i>	Uraon (double postf.)
<i>karna</i>	Sansk.
<i>agantsch</i>	Arm.
<i>ugn</i>	"
<i>kan</i>	Hindi &c.
<i>kanang</i>	Milch.

khana&c.	Ultraindian.
kenei	Yengin (New Cal.)
kueni, kowan	Tasmanian.
kalajan	Australian.
kura	"
kure	"
karusa	Masid
gerip	Erub
kowra	Port Lihou
skor	Kasia
nakor	N. Tangk.
machor	Garo
nakru	Mish.
kuri	Georgian
guru	Galla
gura	"
akuna	Dalla
kulaʔ	Turk.
kologan	Yenis.
korwa	Ugr.
kunya	Tungus
ku	Ugr.
ko	"
kui	"
&c. &c.	

## HAND.

(a). The Tamil and Karnataka tol is Samoiede (*utol*). It is also found, slightly varied, in Yeniseian and N. E. Asian vocabularies.

tol	Tam. anc., Karn. anc.
utol	Samoiede
tolondscha	Yukahiri (double postf.)
tono	Kamsch.
ton	Yeniseian
son	Korea
taalo	Lesgian

(b.) The more common *kai*, *kayi* (*yi*, *i* being probably the def.) is an archaic variety of a root which, in its Scythic forms, is very

widely disseminated (Caucasian, Iranian, Gangetico-Ultraiadian, Asonesian.)

kai	Tam. mod., Tuluv.
kayi	Karn. mod., Toda
kaya	Mal.
kai $\bar{k}$	Gond
khe $\bar{k}$ ha $\bar{k}$	Uraon
cheyi	Telug.
khai	Bodo
akhui	N. Tangk
kuit	"
akhu	Kumi

The root with a consonantal final *t*, *d*, *l*, *r*, is Scythic, Caucasian Iranian, Gangetico-Ultraiadian, and Asonesian. The Scythic forms are found in all these families. The Dravirian appear to be more archaic.

(c.) The Kol *thi*, Gond *the*, is found in Kasia *ka kti*, and Bīnua *thi*, *ti*. The Mon and Anam *tai*, Ka *dei*, are probably connected with it, but they also resemble the Dravirian *kai*. The closest foreign affinity is with the Semitico-Libyan *it Gara*, *haiyit* Mahrah, (whence the Tigre *id*), Hebrew *iath*, Berber *thith*, Arabic *yad*, *yodan*. The root is found in the Chinese *siu*, Japan *te*, Samoiede *hute*, *huite* &c.

The Male *sesu* is probably a variety of the same term. But it may be from the Telugu, *cheyi*, a variation of *kayi* from the common interchange of *h*, *ch* and *s* in Dravirian phonology.

The Australian *biril*, *mara*, *mana*, *mangal*, *mura*, *tamara*, *marigal*, *ma*, &c, Torres St. *bai*, *pai*, New Guinea *mareh*, Mille *ban*, Loyalty I. *wana* of *i-wana-quem*, New Caledonia *yam-wam* (Balad), Malicolo *vean* of *vean-bruas*, Celebes *pale*, Borneo *bareng*, *pinang*, Sumatran *bungu*, *pungu*, Sambawa *ima*, Sasak *ema*, Simang *weng* are Ultraiadian—van Maram, *a-pan* Champhung, *pung* Luhuppa, *mu Lau*,—and N. Gangetic,—*moa* Kiranti, *moi* Gurung, *palara* Newar, *promji* Murmi. The root is found with the same meaning in Koriak *minya*, *minyilen*, *minagylgen* and Latin *manus*. Terms for "hand," "finger," "arm," "foot," "leg," interchange to a great extent, and in the Scythic languages the present one is chiefly found as a term for "finger," a meaning

it also has in several of the Gangetico-Asonesian tongues in which it is current for "hand." Samoiede *ubai*, (Torres St. \*) *mun*, *munon*, Japan *ibi*, Ostiak *pane*, Wolga *parne*, Perm *pelu*, Turk. *bar-mark* &c., Caucasian *palik*, German *vinger*. To connect these with the Ultraindian and Asonesian terms for "hand" I may instance the North Gangetic *brang*, *prach*, *brumu*, Mikir *munso*, Australian *mura*, Tarawa *abuni-bai*, Aru *wawanli*, New Guinea *amui*, all signifying "finger." Hence also the Malay *palit* to smear &c. with the finger, and perhaps also *pala* "to beat."

The various Dravirian vocables for Foot, Mouth, Skin, Tooth and Bone have affinities of a similar character. Some are more archaic than the common Indo-European and Scythic, the closest affinities being African, Malagasy &c., but each of the terms has one or more Scythic or Yeniseian roots. Most have Australian or other Asonesian affinities.

The common Australian term for "foot" *tina*, *dina* &c. is Indonesian and Gangetic-Ultraindian (Bodo *a-theng*, Lau *tin* &c.) That for "tongue" *talán*, *dalan*, *tale*, &c. (Tasm. *tulana*) is Indonesian, *dila*, *tura*, *jala*, *jila*, *chila* (Phil., Celeb., Born.), Gangetic-Ultraindian, *thali* Naga, *cholai* Bodo, and Scythic *til*, *tel*, *del* &c. Turkish, *jolma* Ugr. That for "tooth" *irang*, *ira*, *yira*, may either be the Dravirian *eyiru* (anc. Temil) or a contraction of *tira* L. Macq., dear Moreton B., *tirreg* Erub, *tirig* Muruya, *didara* Jakun, *dara* Bangali L. which appear to be connected with the Iranian *danta*, *denta*, *dens*, *adamn*, *dandan* &c. The latter forms are also Australian and Indonesian, *danga* Cape York, *dang* Masid I. Pt. Lihu, *tango* Bisayan, *dungitu* Buol. *Irang* would be referable to *dang*.

The Papuan vocabularies of Torres Strait have preserved numerous Scythic—chiefly Samoiede and Ugrian—words not

\* In comparing names of parts of the body it is to be observed not only that the same vocable comes to be applied to different objects, but that a common generic term for "man," "body" &c. sometimes accompanies them, and is apt to take the place of the term to which it was originally a mere adjunct. The words for "head" "hair," "skull," "forehead" "face" and "eye," for "nose," "tongue," and "ear," for "hand" "finger," "arm," "leg" and "foot" are much interchanged in the Asonesian vocabularies. One of the most prevalent of the words for "head" &c. in some of the precedings lists appears to have had a generic meaning in some vocabularies. In Tasmanian we find *le-pena* "eye," *pel-vera-ta* "ear," *ro-wela* "elbow," *le-pera* "neck," *mena* "nose" (W. Tasm.), *mena* "tongue" (E. T., so *mi-mena* Brumer. I.) *ka-mena* "chin," *mana-bena-na* "knee," *ana-mana* "hand," *na-mana* "tongue," *ma-meri-ka*

found either in Australian or Dravirian languages, but evidently belonging to the Draviro-Australian era of Asonesia and Ultraindia, when the rude Indo-Australian tribes probably possessed some hundreds of vocabularies, more or less related to each other and to those of the early Scythic or proto-Scythic tribes of Middle and Western Asia and of Africa. In the present class of words we find *bai* "hand," Samoiede *u-bai*; *pil* "ear," Ugrian *pil*; *karusa*, *ger-ip*, *kowra* &c. "ear" (also Australian *kure* &c.), *korn* Fin, *kul-ak* Turkish or Kasia; *mus*, *mush*, *muchi* "hair," *i-wusa* Fin (bus *Fazoglo*); *mit* "lip," Samoiede *pite*; *taip* "lip," Somoiede *tip-che*; *ney* "tongue," *enya*, *inyi* &c. Tungusian, *nyeme* Samoiede; *pit*, *pichi* "nose," Ugrian root *pid* (Chinese *pi* &c.) The other Asonesian languages have a basis of similar archaic Scythic and Scythico-African terms, but the names for the more common objects, such as the above, have in general been replaced by vocables derived from the later intrusive formations, Malagasy and Ultraindian. Both of these, and especially the Ultraindian, being very Scythic in their glossaries, it is often doubtful by which current Scythic words found in Asonesia were imported. With the Malagasy terms there is in general less room for uncertainty, although the Malagasy and the Ultraindian varieties of Scythic roots sometimes closely resemble each other. The chief difficulty is in distinguishing the archaic Draviro-Australian from the more recent Ultraindian terms of Scythic origin, and it is increased by the fact of Ultraindia having been the line by which both of these Scythic currents have flowed to the islands. There need seldom be much hesitation in referring Asonesian words with a well marked Dravirian, Malagasy, Tibetan or Mon-Anam form to these sources respectively, but there are

"eye" *e-vera* "eye," *ka-wa-a-ny* "belly," *yana-o-ple* "teeth," *man-ra-ra-ble* "face." In Tasmania we find *kure-merang* "tongue," *pen-wam* "tooth," *man-wam*, *perangi* "lips," *wan-dim*, *wan-dai*, "rose," *bor-am* "face," *pol-im* "hair"; in New Hebrides, *wara-lang* "nose" *barong* "hair," *mara-ma* "eye" (Pol. &c.), *bra-brun* "breast," *korn-prian* "knee"; in *Toro wari-hu* "hair," *bar-is* "nose"; in New Ireland *pra lenhek*, *pala-lignai* "ear," *bra lima* "hand," *balan-keke* "foot," *pal-bulik* "shoulder"; in Waigui *bram-pine* "hand," "bra-min" "arm," *enom-braem* "hair"; in Dore "bra-lima" "hand," *bra-mim* "arm," *sansun beri* "neck," *senem-bur-em* "hair," *snom-beri* "nose," *ga-bur* "eye lashes," *krum-beri* "back," *bum-beri* "head &c"; in Australian *balang*, *ka-bara* &c "head," *me-barai*, *ma-bara*, *mil* &c "eye," *tun-biri*, *wiling* &c "lips," *muru* "nose" (*ka-muru* Celebes), *ta-mara*, *mara*, *mura*, *bir-il* "hand," *wa-para*, *ma-pal*, *nga-mura*, *biri*, *biring* &c "breast," &c. &c.

many Scythic vocables in the Gangetico-Ultrai ndian and Asonesian languages which may either be of the archaic Dravirio-Australian era or of the later East Tibetan. The Torres St. *kerim*, *kirim* "head," Timor M. *garain*, Tana karah, New Caledonian *gar-moing* (*kara-mai* "face") Simang kala (Ceram ukar "hair"), have Tibeto-Ultrai ndian affinities (*koro Bodo*, *m kura Mishmi* kra Gurung "head", *kara Singphu*, *Milch.*, *kra Tib.* "hair"), but Malagasy has *kara* "skull," and the Kashmiri *kala* "head," Latin *cranium*, Fin *karw* "hair" &c. suggest the possibility of a still older derivation. Another term, *koik* "skull" Murray I., *koik* "forehead" Port Lihou, *koiku*, *ib.*, Cape York, appears to be clearly Ultrai ndian (*koi Binua*, *Nancowry*, *kui*, *kok Manipuri D.*, *kuk Uraon*). Tag "hand" is probably not a derivative from the Malagasy *tanga*, *taṅgana* like the Indonesian *tangan* &c., but an Ultrai ndian term allied to the Sangir *tak-lar*, Viti *thaka*, Toro *haka*, Vate *tako* ("hand," "foot"), otoho Goront. Comp. the Naga *dak*, Aino *dek*, *tegi*, Yenis, *togan*, *tegon* "hand," tak *khyai Singphu* "foot." Tang and tak are evidently variations of the same ultimate root.

*Names of inanimate natural objects.*

WATER.

The names of the more common inanimate natural substances have a like range of connection. Thus for "Water" there are three South Dravirian terms. Nir Kurgi, Tuluva, niru Karn. nillu Telug. may be of Sanskrit derivation (*nir* Sansk.). It is a rare Scythic and Semitic term *enyer* "river" Wolg., *nehr* "river" Turk., *nahr* Arabic. It is not found in Asonesian vocabularies. The Koriak *inh*, Ostiak *eny*, preserve the *n* form of the primitive root, which is also found slightly modified in the Lepcha *ong*, Anam *ni*, Erub *nie*, Madura *eng*.

It is more probable however that the original Dravirian form is preserved in the Karnataka *tiru*, Brahui *dir*, in which case the Sanskrit must be considered as a derivative of the Dravirian modification *nir*. The root *ti*, *di*, is very common, *ti* *Chep.*, *Milch.*, *di* *Magar*, *ti*, *thi* *Karen* &c. The broad forms are Scythic, Chinese, Ultrai ndian, Asonesian. The Ultrai ndian (*Luhuppu*) and Micronesia n (*Tobi*) *taru* (*Champhung thari*) resemble the Dravirian.

Punal Tamil (anc.), *vellam* Malayalam "water" probably



contain the same labial root that is the most common term for "river," *pa* Toda, *varu-punal* Tam. (anc.), *puzha* Malaya., *pole* Karn. (anc), *Kurg.*, *hole* Kar. (mod.), *aru* Tam. (mod), *eru* Telug. [from *varu*, *veru*], *yer* "water" Gond. The root *pa*, *va*, *ve*, *pu*, *po*, (*ho*) is Scythic and it is also found in all the other families under a very great variety of forms and combinations. In the N. E. Asian and Scythic terms the primitive root generally takes a final *r* or *l*, *amar*, *mura*, *muran*, *muren*, *wire*, *polym*, *bere* &c. "river" Scythic, *mul*, *mel* "water" Korea, *mimel* &c. "water" Koriak. This is preserved in the Sanskrit *vari* "water," *Pashai wark*. The same form is common in Semitico-African, *bahr* "river" Arabic, *mura* "river" Makua, (Mongol) *mumel* Felup (Koriak). The Dravirian *varu* shows the same combination and it has been transmitted to Asonesia,—"water" *warari* (Utanata), *weari* Mairasi, *walar* Lobo, *purai* Bathurst,—"river" *brang* Sambawa, *umala* Buton, *marye* Trusan, *bilo* Sydney &c.

The N. Indian *pani* "water" is an allied form, to which the Australian *bana* and Indonesian *banyu* are related.

In the other Dravirian varieties the root appears pure with native postfixes. As examples of the simple root with its vowel variations I may instance the Samoiede *bu*, *bi*, *be*, Pashtu *aba*, *abu*, *abe*, (Sanskrit *apah*, Zend *apem*, Persian *ab*.)

The term *tänni* is confined to Tamil. It is Yeniseian, *tatany* "river". The Gond *donda* "river", *Todava tude* "river" are probably variations of the same term. It appears to have spread into Ultraindia, *dak-tani* "river" (*dak* is "water") *Ka*, *tunli* Khom.

The Male *am*, *Uraon um*, *Kasia ka um* "water," is a variation of the labial root already noticed. This form is found in the Semitico-Libyan family, *ma*, *ma-at* Arabic, *mek* Gara, *maim* Hebrew, *me* Galla, *mah* Egyptian, (*ba* Malagasy).<sup>\*</sup> The Nicobar *mok*, *mak*, Tasmanian *moga*, like the Gangetic *um*, *am*, may have more direct N. Asiatic affinities. Comp. *mu*, *muh*, *muke*, *Tungus*. (*waka* Aino.)

The Kol *dah* "water" is a very common root,—Scythic, Iranian, Ultraindian, Asonesian. It is probably the Sanskrit *udak* which appears to have been early received into the Kol or Gange-

<sup>\*</sup> It is also found in Brahui, *taho* "wind."

tic vocabulary and thence spread to Ultraindia and Asonesia. Mon dat, Tobi tat, Ka dak, Khom. tak, tag, Nicobar rak. But it may have been pre-Sanskritic in India and Ultraindia. It is Yeniseian, dok, Fin tat-se and African, mdok "water", dek "river" Woloff, dogo "river" Galla, date "river" Fazoglo, the root being da, ta, &c. Other variations are found in the Turkish elga, Ultraindian lik, lika, Sunwar ri, Burman mrik (Rakhoing dialect) Khom. prek, Asonesian leko, ilug, Galla lega, where the root has the slender form li, ri, le.

The Uraon cheip "water" is Tibeto-Ultraindian, che Miri &c. &c.

The Kol garra, Uraon khar "river," Chepang ghor, is Kashmiri, kol, kuol, Pashai gal, Semitico-African,—khar Gara, khor Mahrab, Ar., koli Tigre, kor-ama Hausa, gar "water" Saumali, kero "water" Darfur; Mongol gol, Samoiede kolda, Yeniseian "water" kull; Wog. "water" agel, Javan. "river" kali, Australian "water" kali, kaling, kalere &c.

#### AIR.

Of the four South Dravirian terms one is New Guinea and Australian on the one side and Georgian on the other. The root ka, ga is archaic in Dravirian, taking different native postfixes.\* The North Vindyan ta is probably a variation of the same root. It is Scythico-Iranian (at Fin, ot Armenian, atma Sansk. &c).

A second term, ela, is Scythico-Iranian, Semitic, Ultraindian, Asonesian.

A third, bar, is Scythico-Iranian, Ultraindian and Asonesian.

A fourth, puv, is N. Indian and Australian.

The Kol vocable is found in Anam. It appears to be archaic and related to the Semitic hawa &c.

#### STONE.

The principal vocable kal, kala, &c. has spread to Asonesia—kala Polynesian, kain Australian, the latter being closer to the Pashtu variety of the root, kani. The Sindhi kod is nearer the Dravirian, which is the pure Fin kalle, Armenian khar.† The term is also N. E. Asian (Yukahiri, Kamschatkan).

\* It is Brahui, khall.

† Koelle's vocabularies supply mel, momel, men, man N. W. Nigritia, omi, ame, mi, min, mmel, amu, Niger, Chadde &c.

## MOUNTAIN, HILL.

Five vocables are current. Two, found in Gond and Male only, are of immediate Tibeto-Ultrindian derivation. Both are varieties of a Scythic root. The others are archaic. Of two forms of a Scythico-Iranian root, one, found in Kol only, appears to be the more ancient. It is Samoiede, Saumali-Galla, Australian, Celebesian and Philippine. The second form is Fin, Iranian and Australian. The third root is also Scythico-Iranian and in form Yeniseian. In Asonesia it has only a limited Indonesian range.

Of the two Southern roots, one, var, par, mal—Australian *wahr-ro*, *wariat*—is Scythico-Iranian. Fin ware, Ostiak *palta*, Wolg. *wanda*, *panda*, Sansk. *parva*, Kashm. *bal*, *wan*, Aino *buri*, Samoiede *boro*, Turkish *muron*; Fin *wuori*, Latin *mons*. The *u* form is preserved in the Saumali *boro*, *bor*, Galla *borga* on the one side of the Indian Ocean and on the other in the Kol *buru*, Australian *murdo*, *mordo*, *murde*. It is also found in Indonesia as a word for "hill," Philippine *puru*, *palu*, Celebes *bulu*. The New Guinea *wera* is probably a local modification of the Draviro-Australian *war* but the form is also Samoiede *bre*, Ostiak *pel*, Caucasian *mehr*, German *berg*.

The second root *kon*, *kun*, *kud*, *gud*, is also North-Gangetic *gun*, *kung*, *kang*, and Indonesian, *gunong* (Tamil *konam*). The root is Scythico-Dravirian, but the Draviro-Asonesian form is Yeniseian, *konony*. This broad form is also found in the Fin *gora*, *kuruk*, *gures*, *ko*, Persian *ku*, Zend *kof*, Latin *collis*, Mahrah *kalun*, *gar-tin*. Another Yeniseian form, *kar*, is found in Pashtu *gar*, Galla *gara*, Maram *kalong* and Ceram *ukara*. The slender Ugrian *ky*, *keras*, Turkish *kir*, is found in Georgian *kirte* and Sanskrit *giri*. The ultimate guttural root is Chinese and Siamese as well as Ugrian. The Karnataka and Tuluva forms *gudda*, *gudde*—preserved in the Kol *gutu* "a small hill"—appear to have spread into Asonesia at a much earlier period than the South Dravirian and North Gangetic *gun*, *kun*, if the Australian *kata* be referable to it.

In the North two other vocables are found, *dungur*, *dongar* Gond, and *toke* Male. Both are Gangetico-Ultrindian, Tibetan and Scythic. Sindhi has also received the Japanese, Turkish, Tibetan and Male form (*takar*). The New Hebrides *takuar*, and *tof* appear to be allied to some of the preceding terms.

Terms of the preceding classes exist in the primitive era of glossology, and the roots current for them in a family of languages may be of greater antiquity than the formation itself. The vocables we have examined are of different ages in the Dravirian family, but most of them must be considered as at least coeval with the formation, while many of the roots have probably existed from the monosyllabic era, first receiving their present forms when the linguistic type became Scythoid. They do not necessarily throw any light on the archaic condition of the race or on the early history of its civilisation, for such terms are essential elements of human speech in all ages, and they are found in the vocabularies of the most barbarous as in those of the most cultivated tribes. The forms of the vocables indicate a large measure of community with the Scythic, Caucasian, and primary Iranian races, and a less one with the Semitic, but this community may belong solely to a very archaic and barbarous state of society similar to the Australian, for anything these terms can teach us. I will now take a few words implying an advance beyond such a condition, and indicating the possession of certain arts and usages of a civilised character.

*Names of Domesticated Animals.*

The domestication of the dog, and that of the hog, of the cat and of the fowl were probably amongst the primeval events of human history. That of the larger quadrupeds must have been later, although it may have long preceded the Australian era. All that can in strictness be concluded from the absence of the large domesticated animals in large portions of Asonesia is that the means of carrying them to the islands did not exist in the Australian and Niha-Polynesian eras. The light which this class of names can throw on the early history of the Draviro-Australian family must therefore be confined chiefly to the continental branch.

The comparison of the names of domesticated animals is complicated by the fact that they have been interchanged to a remarkable extent. This has arisen from tribes being apt to apply to those with which they become acquainted for the first time, the names previously current for others with which they are familiar. It is not surprising that the "cow" and the "buffalo" should be known by similar names, or even that a tribe which possessed the

cow, should include the horse in the same term when they first saw it. But we have modern instances of races which knew only the dog and hog, applying one of their names for these animals to the cow, and a comparison of vocabularies shows that in archaic times a similar course was frequently followed. In fact some words have been so much pressed into service to meet such emergencies, that if all their applications were included in one vocabulary the generic meaning of "quadruped" might be given to them. The name for the dog has been applied to the cat, the hog, the cow, the horse &c. Many of these new applications become valuable guides in tracing the spread of particular roots and varieties.\*

Another source of difficulty and error in comparing the names of domesticated animals in different families of language is that these names are liable to change repeatedly, long after the first acquisition of the species. Such terms, and particularly those for the horse, are apt to be spread with the breed into foreign countries. In many groups of languages, owing to this and other causes,† there are various terms for the horse, having distinct ranges of foreign affinities. Thus in English we have *horse*, Semitic, (also African and ultimately Scythic), *mare* Scythic (and African), *colt* probably a Celto-Scythic term (*gornydd* Welsh, *kunde* Samoiede, &c.), the Irano-Celtic *equus*, *each*, in the equine terms derived from Latin, *foal* Ugrian &c. These terms had probably separate origins, and belong to different eras of English and of Teutonic or of Indo-European history.

#### CAT.

1. The most common term, *pusei*, *pusi*, *puchcha* &c. is N. Indian and Indonesian. It is also African under the form *mus*, *musa*, &c. and English *puss*. The Pashtu slender form *pishik*, *pishee*, Brahui *pishi*, Milchanang *pishi*, found also in Ultraindian *pishik* (Kapwi), and Rotuma *pitsa*, is Caucasian *pishik* (Chari), Semitic *bis*, African *topisa*, *fisona* and Ostiak *misak*, (also *matska*). It is probable that the Brahui, Pashtu, Milchanang and Kapw<sub>i</sub>

\* Some illustrations of this have been given in the glossarial Appendix to the Semitico-African sub-section.

† The chief of these is the redundancy of terms to denote varieties of familiar objects in which most vocabularies appear to luxuriate in certain stages of their growth.

are derivatives from a western term now represented by the Chari and that the dissemination of the broad form was a later event. Rut *mushik*, *mushak* is also Scythic. The Chari term with its postfix is referable to the Ostiak and the Semitico-African terms to Chari. The *m* form was probably the original, as it is found in Ostiak with the slender vowel, *mis*, in Africa with the broad vowel, *mus*, and it may be added in a widely spread word for mouse (*mush* Sansk., *mus* Lat., &c). *Piss*, *pass*, *poss*, *pass* is "dog" in Slav. and *pisser* is "mouse" in Samoiede.

2. The Toda *koti* is a common Scythico-Iranian and Caucasian term. *Kuti*, *kata*, *kato*, *kiti*, *kotshum* &c Ugrian, *kisa*, *kazhi* Fin, *kot* Slav., *katze* German, *kat* Dutch, English (*cat*), *gato* Spanish, *gadu*, *kit* Armenian, *kito* keto, *geto*, *koto*, *kata*, *katu*, *gado*, *gedu*, *gadi*, *cheto* Caucasian. The ultimate root is found in Korean *koi*, *kuini* "dog". The form *kot*, *kok*, *kit* &c. is also widely spread as a term for "dog." [See Dog.]

3. The Karnataka *biku*, *beku*, may be a contraction of *birkū*, *berku*, from the analogy of the Uraon *birkha*, Male *berge*. But as Gond has *bokal*, *bhongal* for the male, and Marathi *boka* (com.), and the Karn. form is found in Batta (Sumatra) as a term for "tiger", *biku*, and in Buton for "cat", *beku*, it is probably distinct. Comp. *popoki* Polynesian, *paka*, *mpaka* Suahili &c. and a widely spread word for "dog" *mog* Tarawa, &c and "goat," *bok* Dutch, *bakra* N. Indian &c. The ultimate root is probably *bi* and identical with *bi*, *mi* of l. Mongolian has *mi*.

4. The *bir*, *ber* of Uraon and Male is found in Gond *bilal*, Bengali *biral*, Kol *bilai*, and is a common Hindi and Tibetan term. Serpa and Sunwar have the Male form *bermo* (Murmi *tawar*, Gurung *nawar*). In the South Dravirian and Gond dialects it is the prevalent term for "tiger," *pili*, *puli*, *huli*. The Maldivian *bulau* "cat", has the broad vowel of *puli*. The Kashmiri *brair* &c. resembles the Bengali and Gond. The root does not appear to be common, unless it is prevalent as a word for "tiger". Hind. *palang*, Pers. *palank*, Arabic *babir*, &c. [Batta *babet*] Korea *pon*. But the Latin *felis* shows that it is not confined to southern Asia. The same root is probably contained in some terms for "dog" *balu* Maldiv., *balla* Singhalese, *a-val* Champhung, *perro* Spanish, *wuri* New Guinea (Utanafa), *wuriet*

"cat" Gafat, (the same form with the Semitico-Libyan fem. postf.) Bil, bi-r, bi-s (bi-t) and bi-k appear to be the same root with the ordinary Scythic range of commutable finals.

5. The Kurgi nari, Malayalam niri "tiger," Burman nira, is Korean, nal-bi (Amharic nahar).

#### DOG.

1. In the most common Dravirian term the root appears to be na, la, ra, (*nayi, naya, nai, noi, alay, ala, era*). It is related to the Gangetic *nangi, nagi, ngyu, neko*, and to the Savo *ngaka* and Australian *nagi, nago*, these Asonesian terms being evidently of Gangetic derivation. In the vocabulary I have considered it doubtful whether *na* be a root or a prefix in these terms, and lean to the opinion that *nagi* &c. was a softening or contraction of *nangi, nagi*. From the analogy of other Dravirian terms I now consider it clear that *yi, i, ya* is merely a definitive postfix, and *na, la, ra*, the root. It is Australian *alait* (allay Male), *alli*. [The Polynesian *uli* is a contraction of *kuli*, similar elisions of the consonantal initial of a syllable being common in that language]. The Draviro-Asonesian root is Circasian *lah*, Georgian *laki* [=na-gi Gangetico-Austral.] and N. S. Asian *iau, Aino, Japanese*. The Bisayan *iru* is probable of modern Japanese, and not of archaic Draviro-Australian origin. The Tungusian *nyin, nenaki, nenakin*, Mongol *nokoi, nogai* [Samoiede *weneku, bu-nike, kanak*] appear to be related both to the Aino, Japanese and Dravirian, and to the Caucasian and Gangetico-Australian varieties. The term is not a common one, and it appears in the Dravirian-Australian family to be older than the Scythico-Iranian era of its glossology, when other vocables for "dog" were widely spread over middle and western Asia. It may either belong to the primary glossarial basis, of a N.E. Asian character, or to the allied Semitico-African for it is found in both. Hottentot *arieb* masc. *aries* fem., Serakoli *uley*, Galla *luru-tai, lurul-tai*. The close resemblance between the archaic African *ari* or *arie* and *uley* and the Male-Australian *alay, alai, ali*, renders it probable that the latter is of the Semitico-African era of Scythic or proto-Scythic like so many other archaic Asonesian vocables.

2. The Telugu *kukka* is exceptional in the South and probably

of later acquisition. It is North Indian,\* whence it has also spread to Asonesia both in the Bengali-Telugu form (Beng. kukkur) and in the Hindi (kutta, kutto). Bajo koko, Mangkasar kokang, Kagayan kito, Kissa gida, Endeavour Riv. kota. It is E. African kutta, kutti Danakil, N. E. Asian, gottun Koriak, kossa Kamsch., and as applied to the "cat" Korean, Scythic, Caucasian, Iranian, Dravirian. The guttural root under various forms, and the same root with other postfixes, l, r, s, is very common in Scythic and all the families of language that have a large glossarial element of Scythic (Tibetan, Ultraindian, Caucasian, Semitico-African, Iranian, Asonesian of different eras.) For some examples of this wide diffusion see the Africo-Semitic subsection and the Tibeto-Ultra-indian and Mon-Anam vocabulary in Chap. vi.

As it is also applied to the "cow" and the "horse" it was probably one of those words that were early used for the first domesticated quadruped. As examples of these applications I may instance for "horse" the Yeniseian kut, kus, E. Iranian and Dravirian gud, ghotā, ghora, kudra &c, for "cow" the Ugrian kusa, kas Tungusian kukur [in Bengali "dog"], and for both "horse" and "cow" in the same language, the Yeniseian kus, kut, and the Kamschatkan kousha "cow", kasa "horse."

3. The sibilant root of the Kol seta is equally prevalent with that of the preceding term. It is Gangetico-Ultraindian and Indonesian, Iranian, African (the sibilant sometimes changing to the aspirate). The Kol variety appears to be an archaic Dravirian term. It differs considerably from the prevalent forms both on the Irano-Caucasian and on the Gangetico-Ultraindian sides. It resembles the Aino sheda (Kamsch, hetan) more than any of these and as usual some analogous forms are found in the upper Nilotic vocabularies Agau *gezena* &c. The Caucasian he (Chari) appears also to preserve the N. E. Asian form, unless it be a contraction of hue (Avar) which has the broad Ultraindo-Asonesian form (asue, asu, su &c.) analogous to the Sanskrit shoa. The Kasia *hasen* is probably a derivative from the Kol. [For other applications of the root, see HOG.]

4. The Singhalese and Maldivian bālla, balu have been mentioned under "Cat."

\* Brahui has a variation of the same root, kuchak.



## HOG.

There are two terms, both archaic.

1. The form of the common Dravirian term *panri*, *pandi*, *panji*, *panni*, *poti*, *padi* is peculiar. The ultimate root *pa* has numerous foreign affinities, being found by itself, and with other postfixes in Scythic, Tibeto-Ultraindian, Malagasy-Polynesian, and African. (See Tibeto-Ultraindian Voc. App. to chap. vi.) If the *n* be part of the base the closest affinities are with the Scythico-Iranian base, *par*, *por* &c of *por-os*, *por-h*, *par-s* &c.

2. The anc. Tamil *kezhal*, Male and Uraon *kis* is Circassian *kashka*. In Asonesia it occurs in the *Batan kuis*. The root is an archaic one, widely applied to "dog" (also to the "cat", "cow". "horse.") The *Kol sukri* is Sanskritic.

## GOAT, SHEEP.

Many of the vocabularies to which I have access do not contain these terms. All the Dravirian vocables for "goat" are also used for "cow", "buffalo" &c in other families of language. The most common is Caucaso-African, and Iranian.\*

## BUFFALO.

The ancient Tamil and Vindyan term is exclusively Indian, Ultraindian and Indonesian, and the probability therefore is that the native wild buffaloe of India was originally domesticated by the Dravirians themselves and then diffused to the eastward. The same root however occurs in other languages applied to the "cow," and it would thus appear to be of Scythic or at least S. W. Asian derivation. The current Dravirian term has Chinese, Ultraindian and, as applied to the "cow", Scythic, Slavonic, and African affinities. It is probable that both terms were used for "cow" before the Dravirians applied them to the buffalo.

1. *karan* Tamil anc. [*karavai* "a milch cow"], *karu* Karn, Tod. "a young buffalo," *halīya* Gond, *kara*, *kera* Kol. The term, like many others, has spread from the Kol (or an ancient Lower Gangetic language) to Ultraindia. It is found in the Kambojan family joined with a common root for "Cow", *Karbu* Kambojan, *kar-pu* Ka, *ka-pao* Chong. From Ultraindia it has spread to Western Indonesian (*karabau*, *karbau*, *kabu*, *karambau*, *karbu*, *kapa*, *kawa*, &c. &c.) thus indicating the country

\* Math, "goat," Brahui.

from which the buffalo was first imported by a civilised insular nation.

The term is a common Scythico-Indian and Indo-European one for "cow" goru Hind., ukur, *hokor*, *kukur* Tungusian, karo-wa, koro-wa, kar-we, kra-wa Slavonic, kur Icelandic. In the other Scythic languages it is generally combined with the sibilant root, sa-gar, is-kal, ush-kal, sy-gir &c. Ugrian.

It has a wide currency as applied to "horse", "dog", "cat."

2. *erumai irumai* Tam., *eruma* Mal., *enumu* Telug. *erme* Tuluv, *yerme*, *emme* Karn. *ira*, *ir*, Toda ["cow",—uri Mandala, udu Uraon, of Male; "byllock:"—*yerutu* Tam. *yeltu* Karn., *yelta* Tod.] As applied to the buffalo it has no foreign affinities. But it is a Scythico-Caucasian, Iranian, Semitic and African root for "cow." [See Cow 6.]

3. *mankha* Uraon, *mange* Male. This term is of Tibeto-Ultraindian derivation, man "cow" Naga (root *ma*, *ba*, *pa*, &c). [See Cow 1]. In the Ultraindian languages the root is also applied to the buffalo.

4. *bhitkil* Mandala, *budkil* Gond (Gawil,) *bode* "a female buffalo", Gond 'Saonie Chapara'. *Bhit* is a North Gangetic form of an Ugro-Dravirian term for "Cow" [See Cow 1.] The root is also applied to the buffalo in Gangetico-Ultraindian languages.

#### cow.

In some of Klaproth's Middle and North Asiatic vocabularies this important word does not occur, and I am thus without the means of fully tracing the relation between the Dravirian terms and those of Upper Asia.

1. The most common ultimate root is *pa*, *pe*, which is Tibeto-Ultraindian, but it appears to have been acquired by the Dravirian family with a sibilant or dental postfix, *pas*, *has*, *pet*, Singhaliese *ves*. The North Gangetic and Ultraindian forms resemble these, *pit*, *bik*, &c Lepcha, Limbu, Kiranti [*ga-bhi* Bengali], *mashu*, *masi*, &c, Chepang, Mishmi, Bodo, Naga &c. The root in this form is Scythico-Iranian, *mes*, *mis*, *mus*, Perm., *misye* Wog., *mes*, *neng-mes* Ostiak. In these Ugrian languages there are distinct terms for "cow" which are also found in most of the other Ugrian and in the Tartar languages. *Mas* &c is absent

in all the Caucasian languages. In the Indo-European family it appears in the Latin *bos*, which in the oblique cases discards the postfixed definitive and restores the root *bov* or *bou* of the monosyllabic group (*bou* Anam, *woa* Lau, *nwa* Burm. *ba*, *pha* Tib.) In Semitic the Scythic term appears to enter into words for the "buffaloe," *gam-bus*, *ja-mus*. In Africa it is rare. The *Gonga miza*, *mia* &c, *Kosah maas* "cow" appear to be Ugrian. Other Ugrian terms for "cow" are common in Africa. (See Appendix to Sec. 6). As a term for buffalo it occurs in *Milchanang mosh*, *moesh*, and somewhat further modified in the Hindi *bhains*, *Himalayo-Ultraindian meshi*, *mesye*, *moisho* &c. The original of all these terms appears to be the Ugrian *mes*, *mis*, *mus*, which in its turn, is probably the monosyllabic *mo*, *bo*, *ba*, *pa*, &c with a consonantal or final or a definitive postfix "father," "female," "male". The ultimate root is one of the common primary terms for "mother."

The Dravirian terms cannot be considered as archaic, or primary. The root has evidently passed through the Ugrian glossary. The Malayalam *payā*, Kurgi *payu* may be exceptions.

2. The Telugu and Karnataka, *avu*, and anc. Tamil *a* appears to be a form of the primitive root. It is identical with terms for "mother" Drav. *ava*, *apa*, Manip. *avu*, *aphu* &c. (See also "Father" *b*). The Egyptian *ah*, *ha*, *aua*, *Emghedesie havi* are modifications of the sibilant root for "cow," and distinct from the Dravirian *a*.

3. The Karnataka *akalu* is Caucasian, *aka*, *ata* (Lesgi). The dental form of Lesgian is current in Pashai, *ada*, "bull". In the form *ta* it is a Dravirian term for "mother," *tayi*, *tali*, also with a different postfix "father," *tandei*. The Caucasian form is Turkish (*ata*, *aga*), Ugrian and Chukchi (*ata*) "father." The same form is Dravirian with a feminine application, "aunt," "mother-in-law" &c so also Sanskrit *tata* "mother," Nias *eta* &c &c.

4. The Karnataka *dana*, *danam*, Tuda *tanma* contains one of the varieties of the same root as that of the preceding term.\*

The root in both these terms is Scythic and Scythico-Iranian and the application of this particular term to the "cow" is Caucasian.

\* Dr Stevenson refers it to the Sanskrit *dhen* "a milch-cow," but it seems more probable that the term is archaic and merely a variety of the root in *ta*, *ka*. The Sanskrit term I may remark is Ugrian, *tehen* Magyar.

But a similar transfer of terms is primitive or coeval with the distinctive naming of the sexes in man. All formations show that the human sexual names, definitives and flexions have been applied to animals and even to inanimate things.

Some Ultraindian and Indonesian terms appear to be connected with the preceeding root, tanga "cow" Singphu, *adangan* "buffalo" Banjer, *kidangan* "buffalo" Kahayan, *daka* "cow" Bisayan, *damu-lag* "buffalo" Pampangan, *tom* "cow" Kapui, *atom* "cow" Maram, *tyang*, *chang* "cow" Naga, *dia* "cow" Dhimal *katidung* Binua (Jakun), *ttdong* Binua, Mangkasar, Wugi, *terong*, Mandhar, Tidori.

5. The base of the Tamil *karavai* a "milch cow" is more generally applied to the buffalo [See BUFFALO 1.] In Slavonic the root occurs with the labial postfix as in Tamil *karona*, *korona*, *korne*, *kruna* &c. The Brahui *kharas* "ox" has the Dravirian root with a different postfix.

6. The Gond *mura* (Seoni and Chuparah) does not appear to be applied to the "cow" in any of the other Indian vocabularies. The Changlo *brung*, Mon *priang* "buffalo" may either be varieties of the same vocable or the Himalayo-Indonesian *rung*, with the labial pref. A similar term occurs in Sindhi, *paro*, "buffalo." The Gond form is identical with Scythic terms for "horse" which are also found in Abor, Manyak and Gyarung. [See HORSE 3, 7.] In more western vocabularies it is applied to the cow (or "bull" as in Slavonic, *wol*, *wul*, and English); "cow", Georgian *pur*, *pudi*, *furi*, *puri*, *kobali*, Armenian *partze*, Amharic *freda*, Tumali *plan*. It is applied to the bull in Agau *bira*, *bera*, *biri*, Gonga *bero*, Woratta *bora*, Tigre *behhrai*, Hurur *bara*, Arkiko *whur*.

7. The Uraon *udu*, [comp. *uru*, "hog", Maldivian], Mundala *uri*, Male *oi* [from *ori* probably], and the allied Southern terms for "bullock," *yerutu* Tam., *yeltu* Karn., *yelta* Tul., are Caucasian, *ol*, *al* Lesgi. The same root is a Ugrian term for the "horse" *wol*, *wal*, *wyl*, *lo*, *lu*, *alasha*, Turkish *ulasha*, *losha*, *yelki*. The Fin *lehm* *lohma* &c "cow" contains the same root. It is also found in Africa, *lah* Danakil, *loh* Saumali, *lam* Amharic, *lame* Tigre, *lawom* Galla, *lombe* Suaheli, *aira* Dalla. It is also Iranian, *aurochs*, *urus*, &c. As a term for "buffalo" it is Dravirian and

Ultraindian, *irumai* Tam., *ira* Toda, *yirme* Karn., *le* Naga, *alui* Koreng, *raloi* Khoibu, *lui* Maring &c.

8. The Gond *dhoriyal* is found in other dialects with a different acceptation, *dorri* "a cow-house," Telugu, "a cattle pound," Karnataka, *totti* "a pound," Tamal, *torralu* "cattle" Telugu, *torravu* "a herd of cows" Tamal, *dhor* "cattle" Hindi, Guzarathi, Marathi.\*

9. The Kol terms (*gai*, *gundi*, comp. *kunde* "horse" Samoiede) are Arian (*gae* Hindi). Scythic languages have the root with prefixes and postfixes, but the prevalent Arabic and Indo-European forms do not appear to have been derived from any of the existing Scythic terms. They preserve the Chinese form. In Chinese the root alone signifies "buffaloe," the domestication of which appears to have preceded that of the cow, which is designated by the same term with a qualitative or descriptive root conjoined.

gu	Chinese,	"buffalo"
gau	"	"
gauh	Sanskrit	"cow"
go	Bengali	"
gai-garu	"	
ga-bhi	"	
gao	Hindi	
gae	"	
ghwa	Pashtu	
gau	Persian	
kuhe	German	
cow	English	

#### Horse.

1. One term appears to have prevailed in all the South Dravidian languages—*kudi*, *kudu*, *kuda*, *kud*. In Tehugu it has been replaced by a N. Indian term, but its earlier possession of the Tuluva form *kuda* or Karnataka *kudu* is shown by the Indonesian *kuda*, *kudu* which must have been received from the Kalingas.

<i>kudirei</i>	Tamil
<i>kudira</i>	Mal.
<i>kudare</i>	Tulu.
<i>kadar</i>	Tod.

\* All these affinities, save the Gond itself, I have taken from Dr Stevenson's "Essay on the language of the aboriginal Hindus," Joura. Bombay As. Soc. i, 115.

kudure	Karn.
kudre	Kurg.
kotu	Andi
kooto	"
kut	Yeniseian
kus	"
kuda	Malay, Indonesian
kudu	Jav. (Kromo)
ghota	Bengali
ghotak	"
ghoda	Pashai
god	Deer
ghunt	Bokhara
kon	Ugrian, Yeniseian, Slavonic.
kunde	Samoide
koma	Japan

The Yeniseian kut and Andi kuto, kotu, are the closest foreign terms to the Dravirian kud, kuda which is probably more ancient in the Caucaso-Indian province in both surd and sonant forms (Afghan-Bengali ghoda, god, ghotak, ghotu) than the Caucaso-Hindi gour, ghora &c., although all are variations of the same Scythic vocable, of which the primary form is kus "cow" and the root ku (Chinese, Scythico-Iranian &c. see Cow 9).

The Yeniseian term appears to be a native modification of the Ugrian kus "cow," for kus bears both meanings in Yeniseian\*. The Caucasian and Dravirian vocabularies have many special Yeniseian and probably pre-Ugrian affinities. Amongst the Caucasian vocabularies again, the Andi has several special affinities with Dravirian, in the lists of words I have examined. For "horse" the more prevalent Caucasian terms are shu, urshi, shi, che, zcheni &c. Scythico-Iranian), gour (E. Iranian, N. Indian). Kud is probably of more archaic diffusion than these.

As distinct Turkish, Ugrian and other Mid-Asiatic terms have found their way into Indian vocabularies, it would appear that the dominant Dravirians of the earlier Indian civilisation did not receive the horse or its name from a Turkish, Mongolian or even Ugrian tribe. The Sanskrit, Perso-Afghan and Semitic terms are

\* But in a large sense the Yeniseians may be considered as Ugrians.

quite different, although they also have Scythic affinities. It seems probable that the race which gave the horse to the ancient Indians or to India was at one period an influential one in Middle Asia, and that its movements extended to the Caucasian province on the west and to the Indus on the east.

The Dravirians could not have carried the horse to Asonesia in the Indo-Australian era, and it was probably not till long after they possessed it that their maritime art became sufficiently advanced to enable them to transport it to the islands. It is remarkable that no trace of the South Dravirian name exists in Ultraindia, although it is found in Sumatra, *kuda*, a name which has been carried by the Malays over a large portion of Indonesia. The probability is that this term was introduced directly from Southern India by the Kalingas after the ship-building period of the Dravirian civilisation commenced, and that it is of a similar age to the Malay *kapal*, "ship." The Hindi *ghora* is now the most prevalent term not only in the Himalayan but in the Ultraindian languages. Prior to its introduction, however, the Gangetic languages had another term for the horse and it appears to have been carried to Indonesia before the South Dravirian *kuda*.

2. *payima*, Tamil anc. This exceptional term appears to be an application of a native term for "cow" to the horse (see Cow I, Mal. *payā*, Kurgi *payu*).

3. *sadham*, *sadam* Kol, (? *Gond chuddur*), Newar *sala*, Chepang *serang*, Milchanang *rang*, Lungkhe *rang*, *rung*, Burm. *mrang*, *myen*, Singphu *ka-mrang*. This term appears to have preceded the Dravirian *kuda* in Indonesia. It is found further eastward than Sumatra in the vocabularies of all the civilised tribes. It appears to have been carried from Java to Celebes, and from both as centres to other islands. The prevalent forms are *jaran*, *jara*, *charan*, *ajarang*, *jarang*, *ajura*, *anyarang*, *nyarang*, *adala*, *ndala*.

From the distribution of these forms there can be little doubt that the North Gangetic *sarang*, *sala*, *rang*, is the original and that *rang* or *ra*, *la*, is the ultimate root. It appears to have been the term in use by the most civilised nation of the Ganges at one period, to have been communicated by it to the hill tribes on both sides, and to have been carried in the course of its commerce to Ultraindia and Java. The Indonesian forms, it will be remarked, are

direct from the Ganges like the Burman, the former preserving the prefixal *sa* under the forms *ja*, *cha*, *nya*, *nda*, *da*, and the latter adding Ultraindian prefixes (*m*, *ka*) to the Milchanang root which is also found bare in Lungkhe.

As a term for "cow" it is used in Milchanang, lang, Tiberkad *ba-lang*, rak, Lepcha *long*, and probably also in Changlo *brung*.

The root is Ugrian, (*lo*, *lu*, *lyu* Wog., *low*, *loch*, *log* Ostiak, *lo* Magyar), Misjejian (*uloh*), and, in combination with the sibilant root or postfix, Ugrian and Turkish, *alasha*, *losha*. It is also found nearer the Himalayas in the Horpa *rhi*, *ryi*, and Tho-chu *ro*. As a term for "cow" the root is also Ugrian, Caucasian, Semitic, Iranian and Dravirian (See Cow, 6.)

The Abor *bure*, Manyak *bo-ro'*, *broh*, Gyarung *bo-ro'*, Samoiede *bora*, Mongol *mori*, *morin*, *murin*, Tungusian *murin*, *muril*, *moron*, *mureun*, Korean *mar*, *mal*, *mol*, and Perm *wyl*, *wal*, *wol* appear to involve the same root (*ro*, *re*, *il*, *al*, *ol*, *rin*, *ril*, *ron*, *rok*, &c.) and show that at a period prior to that of the Turkish predominance on the north of the Himalayas, tribes of Ugrian origin penetrated to India and Ultraindia, a fact placed beyond doubt by the general character of the Tibeto-Ultraindian glossaries. (See chap. 6.)

The Himalayo-Celebesian *rang*, *sa-rang* &c. appears therefore to be referable to the Tibeto-Ultraindian era of Gangetic ethnography and to be one of the large vocabulary of Asonesian words received from the Ganges during that era. The nasal is probably of Milchanang origin.

4. *tatu* "pony," Tam., Telug., Karn., Beng., Hindi, Marathi, Guzarathi; *tatava* Telug., *tatavani* Karn. This is a reduplicated form of the Tibetan *ta*, Turkish *at*, ut "horse."

6. *gurramu* Telugu. This vocable, which appears to have superseded a native term (*kuda*), is of North Indian derivation. As it is ultimately a variation of the root of the current Dravirian term (1), I give its distribution for comparison.

*gurramu*

*kora*

*ghoro*

*ghora*

Telugu

Gond

Uraon, Male

Hindi and most of the Himalayo-Ultraindian languages, with slight variations in some.



krup	Gond ("mare")
kray, khay	Burman
kre	"
kyeh	Mon
ukalai	Kasia
kuri	Naga
kor	"
korta	Changlo
ghori	Sindhi
guriri	Kashm. (Comp. kudiri Drav.)
kurra	Tirhai
gour	Misjeji
gaur	"

The term cannot be traced beyond the Caucasus as applied to the horse. But in its other Hindi application "cow", goru, it is Scythic (see "Cow", "Buffalo"), or rather one of the two roots in the most widely spread Scythic term hukur, sagar, &c. Probably kar, kur &c. existed separately in Scythic as in Indo-European, as a term for "horse", "cow", "hog" &c, before the compound vocable was formed. The name may have originated in the conjunction of the names of two animals previously possessed by the tribe which first used it. The prevalent Scythic form appears to be referable to the Chinese sha—gau, &c in which gau is "buffaloe" and sha, sua, &c. apparently varieties of the root for "Hog" 'chu, &c.'

7. *Perral*, Gond, "a large horse." This word—which is probably to be found in some of the western languages of India also—is Semitic, *farhin* Mahrah, *feras* Amharic, *Saumali*, *ferda* Galla, *fars*, *faras*, Arabic &c. It must have been introduced into western India with the Arabian horse. In similar forms it is European, *fert*, *perd*, *pferd*, *paard* horse. The original broader form of Mahrah and Arabic preserved by some of the African members of the Semitico-Libyan family, *martā*, *marka*, *murtahad*, and Indo-Eur. *marsh*, *mer*, *mare*, is Scythic, *bora*, *mori* &c. The Gond postfix resembles that of the Mongol and Tungusian *murin*, *murił*, and as the Samoiede form *bora* is Gyarung, Manyak, and Abor (sec. 3) the Gond may possibly be Scythico-Ultraindian. But the form of the root is Semitic, and the postfix is a native one.

The slender form *fer*, *per*, was probably the Himyaritic, from its prevalence in Africa.

5. The Tibberkad *shang*, *shung* [*Limbu shang-wa*, *Kiranti san-wa*, "buffaloe"] may perhaps be added to render complete the evidence of a Ugrian derivation of terms. *Samoiede tshunde*, *tshioka*, *junka*, &c, Turkish *chen*, *dschilka* &c. But the final nasal is probably local, as in *rang*. If so the term *shu*, *sha*, may be derived from the Caucaso-Arian and Caucaso-Semitic *shu*, *sho*, *tziu* &c (*Lesgian*), *shi*, *che*, *ache* (*Misjejian*), *asp*, as *Pashtu*, *ashva* Sansk.; *sus* Hebrew, *hason* *Gara*, *hisan* Arab., *eis* Berb., *su* Mandingo, *sy* *Serakoli*, *haasi* *Kosah*. The Semitic full form appears as a root in the Latin *asinus* "ass", and without the definitive in the Celtic *asyn*, *asen*, further contracted in the English *ass* to the primary root. The Tibberkad, like the Semitico-African forms, would appear to be more immediately connected with those of the Lesgian vocabulary (*shu* &c) which also supplied the South Dravirian *kudu*. It will be remarked that the Irano-Sanskritic form of the root *ash*, *as*, resembles the *Gara* *has* (=as, the *Gara* strongly aspirating initial *a*). The final *as*, *s*, *ha*, *h*, of the Semitic *faras* &c. may possibly be this root and not merely the definitive. In Scythic the root is rare. It perhaps occurs in the *Wolga* and Turkish *ala-sha*, Turkish *lo-sha*; and the Turkish *at*, *ut*, Tibetan *ta*, *tha*, *tah*, Dravirian *tatu* have probably the same root under a different form.

The primary application of this root appears to have been to the hog, Chinese *chu*, (sometimes pronounced *su*) *chi*, *ti*, *tio*, *du* &c, Turkish *suska*, *sysna*, *Wolga susna*, *Fin sika*, Celtic *su*, Eng. *sow*, Latin *sus*, Armenian *chos*, Iranian *shukar*, *sukra*, *sarka* &c *suer* &c, and its most prevalent secondary one to the cow, Chinese *sua gu*, *sha gau*, *ch'hia gu*, *gu* is buffalo, Korea *sio* (Ch. *tio*), Japan *usi*, *ushi*, Abor *sou*, E. Nilotic *sua*, *saa*, *osha* &c, Ugrian *sur*, *ser*, *sir*, &c, Turk. *ushkal*, *is-kal*, *sa-gar*, *chyu-kun* &c.

### Words of Art.

#### ARROW.

The anc. Tamil *kanei* is Sindhi, Pashai, Asami, and more remotely Chinese. A more prevalent term, *ambu*, *amu*, is apparently East African also. A third term is Iranian, Tungusian

and Korian. The Brahui billa, "bow," is Dravirian, vil &c.\*

#### BOAT.

The Indus vocabularies to which I can refer do not contain the word, and the other trans-Indian languages do not supply any term immediately connected with the Dravirian paru, pada, pan and paka.† The most remarkable fact connected with the Dravirian terms is their wide prevalence amongst the leading maritime Malayu-Polynesian tribes. Both terms are found combined in the Sanskrit plavaka (also plava), a "ship," ‡ and as there is no reason to think that the separate words were Sanskrit it is probable that they borrowed the compound from the leading Tibeto-Dravirian nation of the Ganges. The same compound is found in the Celebesian padawaka which preserves the proper Dravirian form of the first term. The current Gurung plava has the Sanskrit form. Both the Dravirian terms have been disseminated over the Sumatra-Polynesian islands, and their prevalence amongst all the navigating tribes of Asonesia shows that the pre-Arian nation of the Lower Ganges gave to the islanders their "flying praus", as well as the horse. The former as well as the latter belongs to the Gangetico-Ultraindian and not to the prior Malagasy era of Oceanic civilisation. The Niha-Polynesian race itself brought both from their native seat on the shores of the Bay of Bengal.

The foreign affinities of the Dravirian val, van, pan, pad, par, pal, as well as of vak are probably to be found in the archaic Semitico-African vocabularies. I do not find these terms, or pa, which appears to be the common root, in any of the Klaproth's Mid and East Asiatic lists, but it must be remarked that he only gives the term "ship" in several and that even it does not occur in the Ugrian and Yeniseian ones. The Semitic elements bur

\* While this section is passing through the press I have received Koelle's *Polyglotta Africana*, which shows that the labial term for "arrow" is not confined to E. Africa and Malagasy. In addition to the African words given in App. B I can now cite reban (*pl. aban*) Mbofon, leban Udom, pena, *pl. pema* Guresa, efa, ofa &c Yoruba group, ivan 'iwi &c; ban, van &c correspond with the Malagasy uvana.

† The Brahui bedi has distinct connections.

‡ These terms are given by Bopp in his Comp. Gram. and are not the ordinary Sanskrit ones for ship or boat. The principal of the proper Arian roots is nau (Comp. naus, navis &c), nauka. It is possible however that there is a connection between nan-ka and plava-ka, and that both contain the root nau, nav, lau, lav. The Telugu padava may be a derivative from plava. Whatever may be the connection of the Sanskrit and Dravirian words, there can be no doubt as to the Indian origin of the Malayu-Polynesian prau, falau, padawaka, waka, vaka &c.

bul, the word *falk* and the Mandingo *bara* are in favour of a Semitic-African connection. The labial root is found in Indonesia, hap, ap Car Nicobar, bubu Nias, bu Gorontalo, bopau, vapa, *kopapa* Polynesian. There is also a wai series,—wai Waigui, ua [= wa] Point Dorei, oia, u Caroline, wa Mille, Tarawa, New Caledonia, pahi Polynesian, nawai Australian, but nawai may belong to the nau, rau, class. The Tongan *hama* may be connected with the Nicobar hap, ap.

A	<i>vallam</i>	Mal.
	<i>vanji</i>	Mal.
	<i>pansi</i>	Bengali
B	<i>padava</i>	Telug.
	<i>paru</i>	Karn-anc
	<i>plava</i>	Sanskrit ("ship"), Gurung
	<i>playaka</i>	Sanskrit
	<i>palwa</i>	Malay
	<i>prau</i>	Malay
	<i>prahu</i>	"
	<i>falau</i>	Polynesian
	<i>velo</i>	Viti
	<i>baru</i>	Bisayan
	<i>bulutu</i>	Goront.
	<i>podora</i>	Australian
C	<i>pakada</i>	Tam. anc
	<i>pla-vaka</i>	Sanskrit
	<i>pahuk</i>	Simang
	<i>avauk</i>	Pagai
	<i>abak</i>	"
	<i>ofakh</i>	Roti
	<i>pada-waka</i>	Celebes
	<i>vaka</i>	Polynesian
	<i>waka</i>	"
	<i>vaha</i>	"
	<i>wa'a</i>	"
	<i>wa</i>	"
	<i>waga</i>	New Caledonian, Bruner I., Louisiade.
	<i>make</i>	Tarawa
	<i>bangka</i>	Balignini

wangkang	Malay, Javan. &c.
uwang	Magindanau
wanga	Viti
vangka	"
wanagi	Redscar B.
tafanga	Polynesian
tafang	Rotuma
nuank	Malicolo
fäkh	Arabic
bara	Mandingo

The root bur, bul, in the Arabic zumbul, zumbur, Mahrah mabur.

pensi	Aino, a " baidar. "
funil	" "

The third Dravirian word for boat, doni, dunga, dingi &c appears to be much more modern than the others—for it has made but slight progress in Asonesia compared with them—and more modern than the E. African and Chino-Anam affinities would have led us to infer. The subjoined table shows what is evidently its true derivation. It is one of the Tibeto-Ultraindian acquisitions of the Indian vocabularies. The chain of connection between the Tibetan root ru and the Gangetic dunga through the North Ultraindian forms is clear, and it would certainly have been more complete if the vocable had not been replaced in several of the eastern Gangetic languages by the Sanskrit nau (Bengali nauka, Hindi, Bodo nau, Dhimal nawar, Lepcha navar, Male nave, Kiranti nava, &c.) The Karnataka doni and the Bengali and Scindian dingi show a considerable departure from the prevalent and otherwise persistent forms. The E. African donie &c may raise some doubt as to the Karnataka term being merely a dialectic variation of the adjacent donga, dongo. But it is probable that the word was borrowed by the Saumalis from Western Indian navigators, for it appears to be confined to them and the allied tribes. Along the east coast of Africa, in Madagascar, amongst the Zimbrian nations and far into the interior of central Africa, Semitic words for "ship" and "boat" are prevalent. In Suaheli we find jombo, in Malagasy sambo (the Mahrah sambu); jahasi in Kinika, zahasi in Kipokomo; dau, (and mzefer, probably

"ship"); in Galla howolo, hirrino &c, in Ki-kamba ngalawa, Ki-hiau rigalawa [garab], in Woloff gal, in Yoruba okkorh, Yebu oko. The Arabic garab, ghrab, Persian kaurib "boat" is Seythic, (Turkish karap, kirap, kirek, Samoide kerep). The same vocable has been adopted by some Indonesian languages, kalaba Pagai, kraba Sumba.

The Bengali dingi cannot be a very ancient South Gangetic word, otherwise it would have been prevalent in Indonesia. It appears to be referable to the Irawadi and Kasia slender form of the Tibeto-Ultraindia root, but its presence in Scinde is remarkable, the broad donga being Hindi ("canoe") as well as Bengali.\*

The Tamil (mod.) *oddam*, Tuluva *oda* may be connected directly with the preceding term, but it is more probably distinct. The Samoiede *odu*, *worga* is the closest foreign terms I have found. The Tibetan *ru*, *du* is the same root, but the S. Dravirian form is Samoiedic. Some of the Asonesian term are Dravirian more than Tibeto-Ultraindian in form *e. g.* *ora Toro* [= *oda Tuluv.*], *ta-ta Tana*:

<i>gru</i>	Tib., Takpa
<i>gu</i>	Manyak
<i>dru</i>	Lhop., Changlo
<i>du</i>	Lhop.
<i>thu</i>	Serpa, Gyami
<i>bru</i>	Gyarung
<i>malhu</i>	N. Tangkhul
<i>rua</i>	Mishmi
<i>arua</i>	Singhalese
<i>reua</i>	Lau
<i>ru</i>	„ Naga
<i>rung</i>	Murung, Garo
<i>hwlung</i>	Aka
<i>surung</i>	Naga
<i>arong</i>	„
<i>lung</i>	„

\* Koelle's vocabularies give *olungu*, *nlungu*, as a common W. Zimbian term for "canoe," so *aronggo* Mose. One of the most common terms is *oko*, *go*, *kokua*, *guro*, *kor*, *kulun* &c. The identity of *lungu* with a common Gangetic term is remarkable. If this form as well as the modification *donie*, *dingi* &c was current at an ancient period on the Indus, its transfer to Africa would not be surprising.

olung	Miri
olong	"
tilong	Mikir
dunga	Murmi, Magar, Sunwar, Kol
donga	Bengali, Hindi, Newar, Uraon, Male
dongo	Gond
doni	Karnat. mod.
laung	Lungkhe
wilaung	Khumi
plaung	" Kyo
li	Singpho, Kapwi, Maring
lhi	Maram, Rakhoing
uli	Maram
tali	Jili
mali	Koreng, Khoibu
mari-kho	Champhung
malhi	C. Tangkhal
malhu	Khoibu
lha	Burm
hli	Karen
ria	Siamese
kleng	Mon
klui	Khyeng [=gru Tib.]
liing	Kasia
ɕ'ingi	Bengali, Sindhi
ring	Garo (Brown's voc.)
alina	Tilanjang
tina	Sambawa
tena	Sulu
in-dyn	Murare ((New Caledonia)
longa	Tagalo
tidong	Kissa [Mikir.]
palang	Jav. (? a variation of the Dravido-Sansk. term palaya &c.)
oria	Dorei [Siamese form]
era	Mairasi
rai	Onin
aruer	Gebe

ora	Toro (Salomon Is.)
lo	Eromango
rarua	Vate [= Gebe]
biri	Lobo
piari	Utanata
mari-nawai	Australian
mari-gau	„
mara-gau	„
war-gai	„
gul	Erub, Masid, Pt. Lihu
kuere	Vanikoro
donie	Saumali
donah	„
deuniki	Danakil
raul	Andi (ship)
adawle	Arabic „
dau	„ „
worga	Samoiede
oddu	„
antu	„
anu	„
al	Yakuti

The form in *n* is a common Samoiede one, and the Indo-European *nau*, *navis* &c. appears to show that it is an archaic variety. The Indo-European word is more immediately connected with the Andi and Arabic form *rau*, *dau*. The Bruner Island *daow*, *raow* "a catamaran" is the Timor *benau*, *wenau* "boat", Vanikora *naue*, Tuanlu (New Cal.) *nayu*, "boat." The Australian *nawai* may either be the same term, or the Waigiu *wai*, Port Dore *ua* or *wa*, New Caledonian *uang*. *Dau*, *rau*, *nau* may be remnants of a once common Indonesian term of archaic Semitic origin like the Vanikoro *baito*, "a house," and many other Asonesian vocables, but the Ultraindian *plaung* and the Arian *nau* conspire to render the etymology doubtful.

The New Guinea and Australian terms may be archaic, but they have every appearance of being derivatives from one branch of the Ultraindian languages, the Manipuri and Yuma. If this be the case they form a remarkable record of the period when this



branch furnished the maritime tribes of the Lower Irawadi and Arracan, and would tend to show that the Ultraindian navigators of this era were the first who had sufficient intercourse with the races of Torres Strait, and the adjacent shores of Australia and New Guinea, to communicate to them the names of their vessels.

Another Oceanic term, nearly displaced like the preceding one, is also referrible to an Ultraindian source.

koa	Tibetan
khuonkho	Naga
khoa	„
khung	„
khombe	Limbu
kupok	Nicobar
<i>mari-kho</i>	Champhung
<i>mari-khong</i>	Luhuppa
ra-kong	N. Tangkhul
kowa	Savu
rai-koi-koi	Onin
kinung	Kissa
jong-kong	Bima, Tidori, Bajo
ja-kong	Bali, Sasak, Buol
koina	Maori [koi Onin]
kuan	New Ireland
kuere	Vanikoro
ku	Utanata
nel-kou	Aneiteum (New Heb.)
kalu, kui	Loyalty Is.
kwa	Nikete (New Caledonia)

It will be remarked that the Savu kowa, New Ireland kua-*n*, and New Caledonian kwa are faithful to the Tibetan and Naga koa.

To complete the history of the Dravirian maritime connection with Asonesia it may be added that the Indonesian term for a square rigged vessel, kapal, is also Dravirian, but of much later origin. It belongs to the Telugu or Kalinga era of Indonesian civilisation, like the Sanskrit element in the languages of the civilised western races. The Dravirian term appears to be a Scythico-Caucasian root with a native postfix, kapal. Circassian kap, kaf, kuafa, Turkish kuafah, Ugrian kap (Wolga), chap, (Ostiak) Tur-

kish kebe [also keme, kema, kama, gome, gemi &c.], Misjejian kema, Lesgian gyami "ship", Sanskrit kepa. Some Asonesian terms for "boat" appear to be rather referrible to the prevalence of an archaic form of this root than to the modern kapal.

kakabei	Bawian
kabbi	Erub
kabi-nar*	„ „ Murray I.
[kupok	Car Nicobar
kopapa	Maori]

In the last term the root is probably papa (Nias bubu) Tonga bopau, ko being a common Maori pref.

Chinese terms are not found in India save in Sindhi, although they have become current in Tibet on the continental side and Indonesia on the insular. The Tibetan syen is Japanese sen, Chinese, ch'hiang, chun, siau, chiu, thiang &c. The form chun is the original of the Indonesian jong, jong-kong, whence the European "junk." The Chinese sampan is also current in Indonesia. The Sindhi jhamti appears to be Chinese ch'hiang-toi Macao. The Tibetan form has descended to Northern Ultraindia *ihseng*, *yesang* Naga. The Anam chuyen, Burman song-pua &c. are of direct Chinese derivation†.

#### House.

The most prevalent term is South and North Dravirian, Kol and Himalayan, in different forms.

illam	Tam. anc., Mal.
illu	Telug.
illa	Tuluv.
erpa	Uraon
arra	Tod.
oarra	Gond
oura	„
ron	„
ora	Kol

\* Nar is also current as a separate term in the Torres Strait dialects. It may be a variation of the Australian [Ultraindian] mari, mar, or directly Gangetic nani Bodo, nawar Dhimal, navar Lepcha [See nav, nau &c. *supra*.]

† The Anam ding of Mr Brown's vocabulary given in App. B to chap. vi. does not appear to be a genuinic Anam vocable, and the Chinese ting is a form of a different root.

ara	Kol
oa	"
uraa	"
ura	Brahui
li	Lepcha
le	"
aru	Champhung
riang	Siamese
lehu	Aru
hale	Simang, Pol.
sarin	Lobo
hari	Polynesian
ri	Rotuma [= ha-ri, ha-le, sa-rin]
alaya	Sansk.
aula	Latin
arre	Danakil
ille	Yoruba
ire	Japan
rat	Koriak
? dih	Persian, "village"

The slender South Dravirian *il*, *er*, is the Himalayan and Asonesian form, and as it is also Japanese and African, it is probably one of the primary Dravirian vocables. The broad *Tuda*, *Gond* and *Kol* form has a stronger resemblance to the Indo-European, but is doubtless of equal antiquity with the other as a Dravirian term.

The Tamil *vudu*, *uidu*, Malayalam *vida*, Male *ava* and Changlo *phai*, is found in the Asonesian *bahi Sulu*. It is probably connected with the Semitic but *Gara*, *ut Curia Muria*, *bet Arab.*, *beth Hebrew*, *baiti Mahrah*, *abaita Egyptian*, *mitse Shangalla*, the *Gara* having the Tamil, and the Himyaritic (*Mahrah*, *Egyptian*) the Changlo forms of the ultimate root (*bu*, *be*, *bai*, *vi*). The *Viti mbeto*, *Vanikoro baito* are Semitic in form. The labial is common in Asonesia under different forms *uba*, *emu*, *ima*, *im* &c. but these may all be derivatives of *uma*, *umo*, &c., a contraction of *ruma*, *huma*, *rumo* &c. The *Sunda ima*, *Mille im*, *Sydney mya*, have some claim to be considered as an independent root. The Semitic vocable is also *Samoiède*, *mat*, *matsch*, *matn*, *met* (Arabic

bet) in which *t* is evidently the definitive or consonantal augment, the forms *me*, *mye*, *ma*, *men* also occurring. The root is also found reduplicated in *Yukahiri*, *meme*, and the *Chukchi mantaak* appears to be connected with the broad *Samoiede* forms. The *Koriak wal-charat* has the same term in its first element.

These broad N. E. Asian forms appear to be also related to the third Dravirian term *manei Tam.*, *mane Karn.* Like the other Dravirian terms they are also found in the Semitico-African family, *mana Galla.* The Sanskrit *balai* "a hall", which is found in *Asonesia* with the same meaning, and also with that of "house", which it has even in *Polynesian*,—*fale*, *fae*, *mare*, *vale*—and *Micronesia*—*playe* (*Pelew*),—is a cognate term.

To the Semitico-African form *bayith*, *bait*, *baiti*, *mitse* and the Dravirian *vida*, &c., the Iranian *vish Sansk.*, *bati*, *basa-sthan*, *niyas Bengali*, *basti* "village" *Hindi*, are allied.

#### IRON, SILVER.

The African affinities of the Dravirian word for "iron" are the closest, and as the common Dravirian word for "silver" *vili*, *bili*, is also a Semitico-African term both for "silver" and "iron," the Dravirian words for the latter may safely be placed in the same class of relations. The eastern prevalence of the *Himyaritic* form *filat* is evinced by the *Indonesian pilak*, *perak* "silver" (*ber* is a prevalent *Caucaso-African* form of the root). But the Dravirian term does not appear to be of similar recent derivation. It has not the Semitic postfix, and in some of the northern languages of *India* the root occurs in other forms *amel Abor*, *Miri*, *mil*, *mul Milchanang*, *mul Tiberkad*.

The same root, primarily meaning "white," "light," "bright" &c., has been applied to "silver" "moon," "sun," "stars," "fire," and to "iron," "gold" and other metals. The direct application of the qualitative "white" to silver has been twofold. The primary one was to call the moon by the name "white." When that name had become a generic substantive for metal, the same root or a different one was, in some languages, again attached to the primary form as mere qualitative, "white-metal." Hence the various forms and applications in which the root is found in the Dravirian languages do not necessarily belong to the same era.

The Dravirian term for "white" is *velliya*, *velluta*, *bile*, *bilige*,

bollane &c. The root is *veli*, *bili*, *bile*, *velu*, *bola* &c. If with these terms for "white" those for "silver" be compared, no doubt will remain that the qualitative root was the original. Drav. *vili*, *bili*, Semitic *filat*, *filati* &c., *bir*, *berur*. In many of the African languages, as in *Kol*, it is applied to "iron," and as the root appears with the same meaning in the Hebrew *barzel*, as well as in the Georgian and Latin terms, in *Kamschatka waratsh* (the base apparently of the Hebrew *bar-z-el*), *Koriak waland*, this appears to have been a very archaic application. But it must have been a secondary one. The etymology is conclusive as to this. Silver is found naturally in the metallic state, and must have attracted the attention of man long before the art of converting ores into malleable iron was discovered. When other metals came into use, the word, in accordance with the most archaic plan of naming, would probably be applied to them with some distinctive epithet, and it would in some languages come in time to have a generic meaning equivalent to "metal." When, for example, "gold" became "yellow-metal," and iron "black-metal," silver would become "white-metal." The basis vocable might come to be applied to gold, silver or any other metal exclusively, in the ordinary course of glossarial conversion and displacement. In *Malagasy* the same root we have been examining is found with the generic meaning. Gold is "*vula-mena*," "metal-red", and "silver" is "*vula-futsy*" "metal-white" or simply "*vula*", thus showing that the earlier application of the term was to "silver." The *Malagasy* word for "moon" *fula-na*, *vula*, involves the same root, and carries us back to its primitive meaning "white". The current term for "white," *futsy*, is the *Agau fuchi*. In African languages the root occurs in terms for "gold," as well as for "silver" and "iron," *warka*, *wirka* *Agau*, *Woratta* &c., *wark* *Tigre*, *baru-bera* *Shankala*, *wura* *Yoruba* (the *Malagasy-Asonesian* form). In other languages also the moon has derived its name, or one of its names, from its being "white," "bright" &c. The anc. *Tamil* name is *pirei*, one of the *Telugu* names is *za-billi* and the *Male* is *bilpe*, all following the *Karnataka* form of the root (*bile* "white" *Karn.*). The *Male* name for "sun", *ber*, and the *Kol* names for "star" *epil*, *ipil* have the same root, while the *Uraon* *binka*, *Male* *bindeke*, *Tamil* reduplicated *vin-min*, *van-min*, *Toda* *pone-min* *Malayalam* *minganna*,

Karn. *minu* are but further variations, similar to those which the root has in the North Gangetic languages, mil. "silver" Milch. The Sanskrit *chand* and Malayu-Polynesian *sina* are applied in the same way, the former being "silver" and "moon", and the latter "white", "radiant", "moon."

From the preservation of the root with its primary meaning and its reappearance in the Dravido-Australian family in various names and in various forms, it must be considered as belonging to the glossarial basis of the family and having its closest archaic affinity with the Ugrian *wal*, *wel* which in Dravirian are best represented by the forms *val*, *bal*; *vel*, *pel* &c. Some of the rarer Semitico-African metallic terms have the same broad archaic forms and they are also Kamschatkan. The *i* forms are variations of those in *e*, and their prevalence both in Dravirian and Semitic appears to show a secondary and direct connection. The Dravirian terms for "silver" are applications of the native root for "white". Were the Semitic derivatives from the Dravirian?

<i>White veliya</i>	Tam. anc.
<i>velutta</i>	„ mod., Mal.
<i>pelpam</i>	Tuda.
<i>bile</i>	Karn.
<i>bilige</i>	„
<i>valtutta</i>	Mal. (double postf.)
<i>baltad</i>	Kurgi
<i>bollane</i>	Tulu.
<i>phulum</i>	Gond
<i>pundi</i>	Kol
<i>punda</i>	„
<i>punia</i>	„
<i>pandru</i>	Uraon
<i>panguro</i>	Male
<i>balih</i>	Kasia
<i>mabulan</i>	Pagai
<i>babilim</i>	Kahayan
<i>buran</i>	Solor
<i>fuluk</i>	Roti
<i>wilban</i>	Sydney (comp. Toda <i>pelpam</i> )
<i>pila</i>	Hindi

walgi	Fin
welkes	"
abyalk	Arabic
fari	Hausa
<i>Light</i> velichcham	Tam. mod., Mal.
oli	" mod.
pelch	Tod.
veluturu	Telug.
belaku	Karn.
berachi	Gond
billi	Uraon
aveli	Male
naval	Dhimal
war	Manipuri D.
<i>Moon</i> bilpe	Male
pirei	Tam. anc.
banai	Kasia
<i>Star</i> epil	Kol
ipil	"
binka	Uraon
bindeke	Male
<i>Sun</i> ber	Male
<i>Fire</i> benki	Karn.
<i>Moon</i> berra	Danak.
werhe	Tigre, Galla
fylein	Felup
vulana	Malag. Ason.
vula	Ason.
bula, bulan	"
<i>Sky</i> vin	Tam. anc.
vanam	" mod.
manam	Mal.
minnu	Telug.
banu	Karn.
ban	"
pone	Tod.
wan	Lungke
thang-wan	Khoib.

tang-ban	Kapwi
fa	Lau
wono	Australian
awan	Sabimba, Sambawa "cloud"
	Malay &c.
wang	Madura
banua	Nias
wang-hi	Naga
wan	Lau
ban	"

With these terms compare Dravirian and Semitico-African words for "silver", "iron" and "gold".

<i>Silver</i> vili	Tamil	
billi	Mal.	
billili	Karn.	
mil	Milchanang	
mul	"	Tiberkad
amel	Abor	
<i>Iron</i> merhad	Kol	
merhd	"	
medh	"	
marhan	"	
panna	Uraon	
phalam	Kiranti, Magar, Chepang [Gond "white"]	
per	Changlo	
mpri	Singpho	
maru	Tangkhu	
mari	"	
puruti	Utanata	
wuru-sesi	Lobo	
wur-sasi	Mairasi	
mumu-mur	Lobo	
mumu-moira	Aru	
malaga	Sydney	
<i>Silver</i> filat	Gara	
filati	" Mahrah	
filthla	Arabic	



	berur	Tigre
	bir	Amharic
	biri	Galla
	biroa	Agau
	aimira	"
	ber	"
	bersh	Gafat
	birish	"
	biro	Gonga
	bira	Woratta
<i>Iron</i>	barzal	Hebrew
	bir	Saumali
	sibila	Galla
	birta	Danak.
	birto	Gonga
	beretish	Gafat
	berti	"
	beroa	Agau
	ba	Egyptian
	vi	Malagasy
	mafy	"
<i>Gold</i>	wirka	Agau
	warka	
	werka	
	wark	Tigre
	barubera	Shangalla
<i>Iron</i>	beresh	Georgian
	ferrus	Latin
	waratsch	Kamschatkan
	waland	Koriak

This close connection between words for "white", "silver" and "iron" raises the question, whether the South Dravirian term for "iron" may not come under the same category. The full form *karumbon* appears to be compound, and if *bon* be the root for "white" and "silver" (comp. the forms *bol* Tuluva, *pun* Kol. "white") *karum* is the Dravirian word for "black", i. e. the compound is "black-silver" or "black-metal." The Karnataka *kabina* has the slender form of the word for white and silver, with

kar contracted to ka. Kar-ba, irum-ba, irum-bu, inu-mu are all contracted variations, the root for "silver" preserving the broad northern forms ba, bu, mu. The allied Hausa term is formed in precisely the same mode. Ka-rufa, ka-rifa iron, aze-rufa, azu-rufa "silver."\* These terms are Scythico-Iranian; "silver" rupa, rupia Sanskrit, Bengali, Hindi &c; "white", accho Sindhi, asho Ugrian, hais Saumali, bathi Galla, ht Egyptian, saisa, sai, sa Khomen, howse Pelew. Pashtu has the Hausa combination ash-repe "silver." In Turkish it is found applied to "gold," asherafi. Suaheli has a similar *a* form in rapia "silver." The guttural root for "black" is Scythic, Iranian and African as well as Dravirian, e. g. kara Turkish, kala Sansk., kam Egyptian, ako Gonga. If the Hausa term be of eastern origin, the full form was probably kara-rufa or kar-rufa.

The Egyptian ht—of which the phonetic form is probably preserved in the Galla hathi and the original in the Saumali hais—was the term for "silver" as well as for "white," and the parent Ugrian root for "white" is also applied to "silver", shie Wolga, osys, esys Perm, ezst Magyar (whence se Karen, hen Khyeng, son Mon).

A common variation in the final consonant or definitive of the full form of the root, sys, brings us to our own English term which is an ancient Ugrian combination of the sibilant and of the almost universally diffused labial root, first examined above. "Silver" is a similar compound to the Pashtu and Hausa term; ver is the N. E. Asian, Ugrian, Caucasian, Iranian, Semitico-African and Dravirian ver, ber, vel, wel &c; sil is one of the forms of the Ugrian sibilant term for "white," sirr, siri Samoiede, siro Japan, sairan, sorny &c. Wog., shora Turkish, asido Abor, sudu Singhalese, sed Hindi. The combination itself is Ugrian, serembire Samoiede. (srebro Slav., silber German, zilver Dutch, silver English, silba Fin). The Japanese siro-kane has the same word for white, prefixed to the Chinese word for silver (gan, gin &c).

The secondary application of the sibilo-aspirate root to "iron "

\* Koelle gives asi-rub as the Kandian term for "gold" (Turkish). No other example occurs in his vocabularies. Wola, wua, wula, oro, moro is a widely spread term corresponding with the Agau war. Another common term is dinar, zinaria, dsinalla &c. It appears to have been received from the Spaniards on the Lower Niger and thence spread to Mid-Africa (Hausa, Bornui &c.)

is now more common than the primary one to "silver,"—Chinese *het*, *thiat*, *thi*, *Anam hat*, *Arabic hadid*, (all close to the Egyptian and *Galla hathi*, *ht*, *hais*), *Sanskrit ayas*, *Latin æs*, *German eisen*, *Dutch ijzer*, *Samoiede yese*, *Korea soi*, *suy*, *Tibeto-Ultrindian chya*, *sei*, *si*, *chur*, *sur* &c. &c.; *Asonesian sua*, *isu*, *hao*; *Tungusian sello*, *selle*, *zhilla* &c.

The Dravirian terms for "silver" and "iron" appear to be at least equally archaic with the Semitico-African, and even with the Ugrian or proto-Scythic. That for "iron," while Ugrian in the ideologic basis and in the separate roots, is native as a compound. With most of the preceding words it claims for the Dravirian-speaking race a civilisation of equal antiquity with the Semitico-African and Iranian, and one which in its earlier form was probably brought from Middle Asia with the language itself.

#### GOLD.

Of the Dravirian terms for gold, *suvarnam* *Telug.* is *Sanskrit* (*Ugrian shiortno Wolga*,\*—the shorter form *shor*, *sor*, *son*, *sir*, *ser* &c. is much more common in *Ugrian*, *Iranian* &c. *Euskarian urna*, *Latin aurum* &c.) *Chinna Karnataka* is an example of the shorter form of the root, *Silong sin*. It is connected more closely with the *Sanskrit* and *Pali hirania*, *hirna*, *Pashtu sira-zar*, *Brahui zar*, *Ugrian sirne*, &c. than with the *Indian sona*. The *Tamil pun*, *Malayalam punnu*, is the root for "white", "silver" again, in the *Kol* form. In *Semitico-African* and *Malagasy-Asonesian* the root is also applied to "gold" as well as "silver". To the *Semitico-African* and *Dravirian* terms previously given may now be added the common *Indonesian* term for "gold" *vulanu*, *fulaan bulava*, *bulawa*, *bulau*, *bulana*, all similar to *Indonesian* forms of the same root applied to "moon", "silver", "white."

As the most simple and methodical mode of exhibiting the short glossary and its affinities as a whole, I have thrown the numerals and the 60 miscellaneous words into two comparative vocabularies;† giving under each word a separate place to every

\* The root *sor*, *sol*, *son* &c, is applied in *Scythico-Iranian* vocabularies to the "sun" as well as to "gold".

† See Appendix to Chap. V (A and B). I have ventured to indicate the postfix by italicising it in most cases, but it is probable that I have sometimes confounded a particle with the root and more frequently marked as a postfix what is really a portion of a dissyllabic or polysyllabic root. To distinguish the roots accurately

root current for it in the Dravirian languages, and under each root the various forms it assumes, followed by an indication of the foreign affinities, so far as the vocabularies accessible to me have enabled me to trace them. In most cases these indications must be considered as suggestions rather than conclusions, materials to aid research into the history of the several vocables and not such history itself. Where the same root is widely spread in foreign vocabularies the affinity pointed out may be safely adopted as a real historical one, although the complex relationship may remain obscure, and in many cases may belong to the primary monosyllabic stage of the language. Where the particular form of the Dravirian vocable—in root elements, or in these and the attached definitive or definitives,—is found in another vocabulary, a comparatively close and direct connection is indicated. A double identity in root and definitive, in the structure of the compound, and in that phonetic form which is so liable to change,—can only be accounted for, in general, by referring the vocables to one diffusive vocabulary, or to a common mother formation. Many of the affinities noted must—from the absence of cumulative or corroborative indications—be considered, for the present, as merely phonetic. Further research will raise them to a glossarial or historical rank, or discard them as fortuitous. Although they possess no recognizable value in the present paper, I have not considered it right to omit them, because data accessible to others, or which may be hereafter published, may prove them to be real.

In the more exact consideration of the historical affinities which forms the text of this chapter I have used the Appendix as a body of suggestions only, and have not thought it worth while to point out in detail where my present inferences differ from those indicated in the vocabularies, which were compiled long ago.\*

in all cases would require an intimate knowledge of the Dravirian languages and a full comparison of their vocabularies with all the others in the Old World at least.

\* Considerable time has also elapsed since they were printed, and the additional materials now available, the increased facility and certainty with which a more intimate acquaintance with the structure of different families and a longer practice in the collation of vocabularies enables me to distinguish roots from prefixes, post-fixes and infixes, and the numerous imperfections I now find, would dispose me to cancel the whole series, if there was any prospect of finding time to compile them anew.

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## APPENDIX TO CHAP. V. OF PART II.

## A.

COMPARATIVE VOCABULARY OF THE NUMERALS OF THE DRAVIRIAN  
FORMATION.

## One.

a. *Onru* Tam.; *onna*, *wunnu* M., *onji* Tul., *Tud.*; *undi* Gond., *unta*, *Uraon*; *ort*, *ondong* Male. (Root, *on*).

b. *Tel.* *vokati*, *Tod.* *vodda*.

*On* &c. is a very archaic Asiatic particle, and current in many languages as a definitive or article and unit. It is chiefly prevalent at the western and eastern extremities of the Old World. *Europe*:—*en*, *oino*, *wena*, *one* (*wan*). *Africa*:—*uan* Berber, *yeen* Shillah, *wani* Fetu, *na* Ibo, *na-ya* Kasha, *inni-ke* Danakil and Amharic, *adde* Tigre, *inye* Kafir. *N. E. Asia*:—*Samoide* *niol*, *Koriak* *onen* &c., *Kamch* *koni* (Afr. *akun* &c.) It has also made its way into *America*, being found in some of the Sioux and Californian languages:—*wan-che*, *yon-kai*, *na-nugu* &c., *kenai* San Raph. (Kamch). In the Mongol *ni-ge*, *ni* is probably a pref. (but comp. *Danakil* *inni-ke*). The Tungusian and Samoide union, *om* &c. may be related to *on*, but it is more probable that they are connected with the labial definitive. To the east and south of the Dravirian region it is found in the *Lau nung*, *ning*, (also a demonstrative), *Nicobar eng*, and in several *Asonesian* languages.

The exceptional *Telugu* *vokati*, *Tod.* *vodda*, is a rare but widely scattered combination of two common numeral and definite elements (Comp. *afok* *Tumbuktu*; *veike*, *veit* *Ugrian*; *fito* *Japan*; *woto* *Kaili* (Celebes), *motu*, *wakal* *Australia*.)

## Two.

*Irandu* Tam.; *randu* Mal.; *yeda* *Tod.* (root elided); *yeradu*, *randu*, *erad* Tul.; *eradu* Kar.; *rendh*, *yeradu*, *Tel.*; *ranu*, *Gond*; *e-no-tan*, *Urao*; (*irat*, *Brahui*). The root is evidently *ra*, *er*, *ir*, with or without a prefixed vowel, *nd* being an euphonic augment of the definitive postf. This definitive (varied by the change of the consonant to *d*, *l*, *n* &c) is one of the most prevalent terms for 2 in Asia and Europe (Iranian). In *N. Asia* it is rare, but *r* is an element in *Mongol*, *Tungusian* and *Koriak* terms. *Ir*, identical with the Dravirian, is the North Chinese term. In the original Iranian, *d* is combined with a labial definitive, and the few E African terms are evidently of Iranian origin (*Danakil*, *Galla*, *Malagasi* and its numerous *Asonesian* derivatives). The Georgian *yeru*, *dzar*, *ori*, *shiri* "two" probably presents the original of the *N. Asiatic* and Dravirian terms, because it is regularly formed from 1, to which indeed the *ru*, *ri* &c properly belongs. The form in "one" *ar*, is still closer to the Dravirian, *ar* being an inversion of *ra*.

## Three.

*Munru* Tam.; *munmar*, *muna* Mal.; *min*, *mudu*, *Tod.*; *maji* Tul.; *muru* Kar.; *mudu* *Tel.*; *munu* *Gond*; *ma-no-tam* *Uraon*; (*musit* *Brahui*, Comp. *maji* Tul.) (Root, *mu*.)

This numeral (the labial det. *ma*, *wa*, *ba*, *va* &c.) is not Iranian or Semitic. But it is Caucasian, *N. Asiatic*, and African. *Cauc.* *mi* (combin-

ed with s. of 2).; Ugrian *lm, rm* (combined with *k* of 2); Japan *mġ* (uncombined). It is not found in the other N. and N. E. Asiatic systems, and it is rare in America (Catawbas *na-mun-du*, Sahaptin *mi-tat*, Shoshoni *manu-thit?*, Sioux dialects *na-mena*, *lau-b lah*, *yah-mani*). It has also spread into Africa, where it is combined with other particles as in Cano. & Ugr., but it is not prevalent.

#### *Four.*

*Nangu, nalu Tam; nalu Mal., nonk Tud., nalu Tul., nalku Kar., nalugu Tel., nalu Gond.* (Root probably *na*, and *gu, hu* a second def. postfix.)

This term is not Iranian or Semitic, (but *ar* is an element in the Sem. 4) One of the Caucasian terms approaches to it, *unukugu* (Lesgian). But the clearest and most numerous affinities are Ugrian and African. *Ugr.* *nila* &c., *Afr.* *na, no, ni, nani* &c. (Mandingo &c.), *ne-nol* (Bullom), *inan* (Moko), *mani* (Kosah) &c. From the distribution of the term in Africa and Asia, and the mode in which the elements are interwoven into some of the African systems, it is probable that *na* &c. was the radix of a binary system belonging to a formation that predominated in S. W. Asia prior to the epochs of the diffusion of the Caucasian, the Semitic and the Iranian. It does not appear to have made much progress to the Eastward, as it is not found in the existing N. E. Asiatic and the adjacent N. American languages. In the latter *n* is a frequent initial, but it is merely definitive, being found in 3 and other numbers.

If the root is *na*, and *la, lu* is the poss. postf., the final *gu, ku, k* must be a superadded definitive. Double and even treble definitive postfixes or prefixes are not infrequent in the agglomerative formations of Asia, Europe, Africa, Asonesia and America, and the Dravirian vocabularies supply instances. The combination of *lu* and *gu* may therefore be purely Dravirian in its origin. *Gu, ku, &c.* is a common definitive final in some of the Caucasian languages, and others which do not use it have imported it as a substantive portion of numerals which they have borrowed from the former. The Georgian *es-gu, l*, is an instance, the proper Georgian unit being *ar*, with or without *thi*. The Caucasian affinities of the Dravirian numerals raise the suspicion that the final *gu* of the latter had a similar Lesgian origin. The parent system was doubtless formed in S. W. Asia, the great focus of all the Asian, European and African numeral systems; and the present Caucasian numerals are probably themselves derivative from some archaic formation that was not confined to Caucasus and did not originate there, for the plain of the Euphrates, and not its head basin or the vallies beyond, is likely to have been the earliest seat of civilisation in this region.

#### *Five.*

*Aindu, anju, anchu, Tam., anja, anchu Mal., yajj, yajjkhū Tod., ayimu, Tul., ayidu,aidu Kar., ayidu Tel., eaijhan Gond.* (Root *ain* or *an* probably, but possibly *anj, anch*).

This is a peculiar term. If the root is *ain*, or *ai*, it appears to be a mere flexion of *na. 4.* If *anj* &c. be the root, the only affinities I can discover are the Caucasian *inshtu*, itself an inflected combination of definitives, and the Iranian *panchan* &c. with the connected words signifying "hand" (e. g. *yash, chsy*, Ugrian; *siu, tsu, chu, sesu*, Chinese, Ultrad. Ind; *hasta, seste, hath*, Iran.) If the numeral was not derived from *Cauc. or Iran.*, but was a direct modification of a word for "hand," the

nearest term is the Tungusian *hanya*, the ancient prevalence of which is attested by the European *hand*.

### Six.

*Aru*, Tam., Kar., Tel., *ara* Mal., *orr* Tod., *aji* Tul. Gond. (Root *a* probably, *a*-ru, *a*-ji, but perhaps *ar*.)

From 5 a new series of simple definitive terms appears to commence. In this respect the Dravirian system is very remarkable, the allied Asiatic and African systems forming the higher numbers by inflecting or combining the lower, adding them to 5, or subtracting them from 10. I cannot but suspect that the Dravirian terms are really disguised inflexions of the lower ones. If this is the case *aru* must be referred to *ira*, *era*, 2, and be considered as a remnant of an original binary system (2, 4, 6, 8), a conjecture countenanced by the great prevalence of such a system in the Old World, and the frequent formation of 6 from 4 or 2.

### Seven.

*Ezh*, *ezhu* Tam., *ezu*, *yezha* Mal., *yelu*, *el* Tul., *yo* Tod., *elu*, *velu* Kar., *edu* Tel., *yenu*, *yetu* gond. If *a* is the root of 6, *e* is the root of 7 *du*, *tu* and *zhu* being the def. or poss. postf. The Tamil *zh*, (French) is *d*, *l* in the other languages. At present I am inclined to consider *e* as a flexion of *a*, or *e*-*du* of *a*-ru.

### Eight.

*Ettu*, *yettu* Tam., *etta*, Mal., *yeta*, *ett* Tod., *ename*, Tul., *entu*, *yentu* Kar., *enimidi* Tel. The root appears to be *en*, *et*, joined in some of the terms, if not in all, to another particle. I incline to consider the term as formed from 2, 10, by agglutination, a common mode of forming 8 in allied Asiatic languages (Ugrian &c.) If this is the case, *en*, *et*, represents 2 (*erá*, *ren*, *yed* or *en*) and the definitive finals represent 10, by vocalic reflection or harmony. Kar. 8 *en-tu*, 10 *pa-tu*; Tel. 8 *en-mi-di*, 10 *padi*; Mal. 8 *eta*, 10 *pa-tta*. The *imi* and *ame* of Telugu and Tuluva may signify "short of," "less", or some other term indicating that the number is 2 short of 10, or they may merely be the *ba* of 10 transformed by the phonetic action of the adjacent sounds. Thus in the highly harmonic Tel. *t*-om-*midí* 10, may have been *t*-on-*bidi*, *t*-om-*bidi*, and then more euphonically *t*-om-*midí*.

### Nine.

On-*badu*, on-*bakudu* Tam., om-*bada* Mal., oram-*bo* Tul., om-*bad* Tod., om-*bhattu* Kar., *t*-om-*midí* Tel.

These words are 1, 10, i. e. 1 short of 10. The Telugu and Tuluva prefix and infix a definitive in *om* 1. (*on* modified by *b*) The Telugu term is formed like that for 8, and as *om* is unequivocally 1, it strongly confirms the opinion that 8 is formed from 2.

### Ten.

*Patta*, oru-*pakudu* ("one. ten") Tam., *patta* Mal., *pott* Tod., *pattu* Tul., *pattu*, *hottu* Kar., *padi* Tel.

The root is evidently *pa*, the poss. postf. changing in Telugu to *di*, the pronominal form of its poss. postf. With or without the postf., it is a common N. Asiatic and African term. Af. *pu*, *fu*, *own*, *awo*, *fut*, *fuk* &c. *metá* (Coptic); Samsiede *bu*, *wi*, *bi*, *bet* (Coptic.)

## B.

COMPARATIVE VOCABULARY OF MISCELLANEOUS WORDS OF THE  
DRAVIRIAN FORMATION.1. *Air*.

a. *kal*, A. Tam., *gali*, *ghali*; *katta*, *kattu*, *kott*, Tam. Mal. Tod If the *k*, *g*, of the first term is prefixual and *li*, *la*, the root, it is identical with the Irawadi, *li* &c., Karen *ih*, Burm *le*, Yuma *ka-li*, *a li*, *lhi* &c., which is also Scythic and Semitic. The other postfix *tu*, *ta*, *t* is also a root for "Air," "Wind,"—Gond, *bariba* (H.) *ita*; Male, *take*, *taphe*; Uraon *thaka*, (Comp. A-onesian *to*, *gato* &c., Fin. *at*, Armen. *ot* &c.) There could not well be a more striking instance of the extreme caution required in comparing monosyllabic roots. At first sight the Dravirian *gali*, *kal* and the Yuma *kali* appear to be identical, and even the rejection of the Yuma prefix *ka* leaves ample room to contend that the root *li* is at once Ultrairian, Dravirian and Scythico-Semitic. I think, it is clear, however that *li*, *l*, *tu* &c., are the ordinary Dravirian postfixes and that *ka*, *ga* common to the two terms, both of which are found in Tamil (*kal* A. *kattu* Mod.), is the Dravirian root. As *t* and *k* are frequently interchanged it is probably identical with the Vindyan dental form.—Male, *takhe*, *taphe*; Uraon, *thaka*: Gond *bariba ita*. Beyond India the dental form is common as a term for "Air" or "Wind" and the guttural very rare. Polynesian *to*, Trianjang *tiu*; Mille *gato*. Tobi *gutam*, which may be the dental with a definitive prefix, or direct derivatives from the Dravirian *kattu*. It is the most common Scythic root, *at*, *uta*, *wet*, *wota* Wogul, but, in general, it takes a postfix e. g. *utun* Chuk oddun Tung. *tol*, *tyil*, *tuili* &c., Ugrian, Turkish, with which Comp. the African *dolah*, Darfur. The same root reappears in the Armenian *ot*, Sanskrit *vata*, *atna*, Zend *watem*, Bengali *batas*, Lat *vatus*, Persian, Hind. *bad*, A-onesian *badi* (Sabimba). In Malay *badi* is applied to the spirit of a person or animal that has been killed, and which, it is supposed, will take vengeance on the slayer if a charm is not used to lay it (See a charm used by elephant killers; Journ. Ind Arch I. 316.) In Malay *badai* is a gust of wind; Kagayan *padak*; Australian *padru* (Bathurst) (Sansk. *badra*), Binua *badara*, Malay &c. *udara*. The Nicobar *kufut* is probably the same root with the prefix *ku*, and in the Malagasi *rivotra*, Indonesian *ribut* &c. "storm," "hurricane", it appears to be combined with another wide spread root for "air", "wind" (*ri*, *li*, above referred to.) The only guttural forms I find are Australian *kira*, *kirrar*; New Guinea, *giriiks*; Wolloff *quelo*; Fin gai-so; Japan &c., *ka se*; Mongol *kei*; Mon *kia*; Nega *tikhe*.

b. *elaru* Kat. A. This resembles the Ultrairian term (which see for the foreign affinities), but it may be the common Drav. root *a*. with the initial consonant elided.

c. *amheram* Telug. *amayam* Mal.

Korea, *param*, *paran*; Ugrian, *warma*, *barska*, *marwez* (Wolg.); *barski*, *merga*, *merz* &c.; Koriak, *walkatti*. Boir *bar*, Gar *bal*, (see Ultrairian), *li* is a common A-onesian root. From the commutability of *l*, *r* and *d* it is probably radically the same as *bad* &c. (b).

d. *pavanam*, *weiwa*, Telugu "Wind"

Kashmiri *wav*, Pashtu *wah*, Newar *phai*; Ende *waba*, Australian *wibi*,



*vepe*; Quilimani *pe vo*, Suahili *paipo*, *apipo*, Galla *hubē*, *afow*, Danakil *haha*; Koriak *afaugui*; Semitic *hawa*; Kol *hoyo*, (see *Ultr.*)

## 2. *Ant.*

*a. uravi*, *erumbu*, *irumbu*, *irivi*, *erb* (the root appears to be *ri. ru* &c., the *m* being a common euphonic augment before *b*.)

Ultraiud. *lang*, *rang*, *miling* &c. *Asonesian*:—Bis. *langam*, *sulum*, *Lamp serem*. Sund. *sirum*, *Aru areram*, *Pul. lo*, *lolo*. The same root is probab'y contained in the Celebesian *bir*, *bere*.

*b. Tel. chima*, *Tul. pijin*; Gangetico-Ultraiud. *chiji*, *chimech* &c. Hind. *cheumta*.

## 3. *Arrow.*

*a. kanai* Tam. A.

Pashai, Sindhi, *kan*; Asam *kanr*, (See M. A.); Koreng. *takyen*, Anam *ten*.

*b. ambu*, *amba*, *ammu*.

This closely resembles the Mishmi. *mpu* &c., but the Ultraiudian root is *pu*, *pun* &c. and the Dravirian apparently *am*, if it is native. It appears, however, to be E. African. Comp. Suahili *mpamba*, Makua *impamba*, in which *m*, *im* are prefixual. The root *pamba* is probably connected with the Malagasi *uvana* and its Asonesian derivatives, and also with the Sanskrit *bana*.

*c. Tul. biru* ("bow," Kar. *bilu*, Tam. *vil*, Tel. *vil.ambu*, Mal. *velu*.)

Sansk. *pilu*.

*d. saraŕu* Kar. A.

Although ancient it is Arian. Vindy. *sarh*, *char* &c., Naga *lasan*, *laŕan*, *san*, Kapui *than*, Siam *luk-son*; Sansk., Pali, Bengali, *shara*, *saro*, *shat* &c.; Tungus. *ser-dan*, Koria *sar*; Georg. *isari*.

## 4. *Bird.*

*a. pul*, *paravei*, *parva*, *pull*.

Angami Nag. *para*; Andi *purtie*; Hind. *parinda*, English, *bird*; Galla *afala te*; Malagasi *vorona*; Asones. *burong* &c. The ultimate monosyllabic root is doubtless the same as the Tibeto Ultraiudian *byu*, *bu*, *vo* &c., but there is apparently no *direct* connection between the latter and the Dravirian. The *l*, *r*, *ra* is probably the definitive.

*b. pakŕ*, *pita*, *h-ki*.

Bengali *pakhyi*, Sansk. *pataka*, Hind. *pakheru*; Daphla *pata*, Aka *putah*, Abor *petang*, *patang*. Fin *pitka*, *potka* (Sansk. *pataka*). *Ason*.—Binua, *pake*, Lamp. *puti*, *piatu* ("fowl"), Pasir *ib*. The Indian and Indonesian form is probably pre-Arian. The root appears to be the same as in *a*.

## 5. *Blood.*

*a. chora* Mal. chore Kurg.

Tungus *choma*; Gaug. Ultr. *chi*, *chai*, *sai*, *asu* &c.; Circ. *sha*, *tcha*, K. *otah*.

*b. fennir*, Tam. A.; *kenniru* Kar. A.; *khens* Ur.; *kesu*, Male; (? Garo *kan-chai*.) Su. *si*, *chai*, &c., is the preceding Gangetico-Ultraiudian root, and *kan*, *ke* &c. may be merely the Ultr. pref., Hind. *khun*; Turk. *kan* &c.; Fin *kem*; Aino *kim* &c.; *Ason*.—Nicob. *kanak*, Austral. *kuain*, *komara*.

*c. notturu*, *nettar* Telng. *Tul.*; *nattur* Gond.; (? Lau *leut*, *lut*, *let*; *Ason*.—Sunda *lei*, Trusan *elod*).

*d. udiram* Tam. [Sansk. *rudira*].

## 6. Boat.

*a.* pakada, padava, paru, vanji, [Bengali pans] *alam*. I place these terms together because they appear to contain a common root, *pa*, and it may be considered uncertain how much of what follows it is merely definitive; *ka-da*, *da-va*, *n-ji*, *l-am* appear to me to be double postfixes of the ordinary kind. Probably two distinct terms, however originally formed, have long prevailed, 1st, *pak*, found in A. Tam. only, and, 2nd, the more prevalent *pad*, *par*, *val* or *van*. Both have been carried to Asonesia,—avauk Pagai; pada-waka, Celeb.; vaka, poki, Polynes; wangga Viti; venau, wenau Timor; bangka Balignini; uwang Magind.; wangkang Mal. &c. The Indones. prahu, prau, Pol. falau, Viti velo, may be from the Dravirian paru or the Ultraindian p'laung (Gurung plava) *Pa*, the ultimate root of the Dravirian terms, exists in the Mille, Tarawa and New Caledonia *wa*, Car Nicob. *ap.*, Gorontalo *lu*, Nias *bubu*.

*b.* doni, Kar. M.

This name is widely spread along the coasts of the Indian Ocean and Ultraindia. *Africa*:—Saumali donie, donah; Danakil deuniki. Sindhi, Bengali, dingi; Anam, ding; Chinese (Teo chew) ting sampan (canoe); Kol. dunga, denga; Murmi, Newar, Magar, Sunwar, dunga, donga; Aka hulang; Garo, reng; Naga, Manip. Kum., surung, rung, plaung &c., Mon kleng, galon &c. &c., Asonesia,—tina Sumba, Solor, tidong Kis. (tulong Mikir). The slender form ding, ting, has spread along the coasts. The broad form dung, dong, rung &c. appears to have a distinct history. In the Gangetic valley the Bengali dingi has superseded the ancient West Ultraindian dunga, donga, still preserved in the Himalayas and Vindyas,

## 7. Bone.

enpu, elumbu, ella, emika, elume, eluvu, elu.

Tibeto-Ultraind. ruba, along, rang, aru, aro. *Ason*.—loh, lolor, &c. Semitic alam, alot, ailathir; Galla lafa; Pashtu alukei; Lesgi, root ra, ro, re, lu.

## 8. Buffaloe.

*a.* karan, kara, kera. Tam. A., Kol.

Kambojan kar-bu, kra-bo, Chong, ka pao, Ka, kar-pu; Indones. karbau; karabao, kabu &c. The same root is probably found in *gour*, *gor*, and the Beng. and Hind. name of the wild buffalo, arna, appears to be a contraction of the Dravirian karan.

*b.* eruma, enumu, erme &c.

Ultraind. le, reh, loi. The root is a common one as applied to the "cow," Scythic, Tibetan, African.

## 9. Cat.

*a.* pusei, Tamil A. epuchcha, Mal., puchche Tuluv., pusi Kol.

pusi, Pashtu, Sindhi, pasha Kashgar; Milchanang pishi; Kapwi pishik, pishik; Fin misak, matska &c., Mong. michoi; *African*,—mjs, musue, topisa; *Ason*.—pusa, Born., Phil; Semitic, bis; English, puss. The postfixed root is probably the Egyptian chat, shai, preserved unaltered in the Mongol mi-choi, Naga mo-chi, Bodo muji. The other root *mi*, *pi*, *pu*, is also common. In the Tibetan *sini* the position of the two roots is reversed.

*b.* beku, biku Kar., probably the root bi, be (see *a*) with the postf. *ku*.

*Afr.*—paka, Kilim; *Ason*.—bika, Buton. The Buton term is Dravirian;

## 10. Cow.

*a. avu*, Tel. Kar., a, Tam. A.

The root, *a*, is probably archaically connected with the Tibeto-Ultrai-dian *ba*, *wa* &c. (which see), but it may be connected with the Lesgi *a ka*, *a-ta*, *a-l*, (see *d*)

*b. petam*, *peta*, *pasu*, *pasuvu*, *hasuva payya*; Singhal. *vesi* The ultimate root is probably *pa*, *pe*, *ve*

T. U. *ba*, *pha*, *wa* &c., as in *a*. Comp. Himalayan, *pit*, *bik*, *bit*, *bi*; Dhimal *pia*; Karen *phi*, *bing*, Khumi *bhi* (buffaloe). But the Dravirian-Himalayan forms, from their possession of the final dental or sibilant, connect themselves directly not with the Tibeto-Ultrai-dian but with the Scythico Iranian *mes*, *misye*, *mus*, *wanch* &c., (Ugrian); *machala*; Tungus; *bos* Latin; *maas* Kosah &c. The Chepang, Bodo, Garo and Naga terms are more purely Scythic than the South Indian,—*moshya* Ch., *mashu*, *mushu*, Red., *mashu* Garo, *masi* Naga. The same root is a common one for buffaloe,

*c. tanma* Tuda.

(Perhaps *tan* has been adopted from *petam* Ult. tom Kapni, *atom* Ma-ram.)

*d. akalu* Kar.

Cauc. *aka*, *ata* (Lesgi). Probably *d* is connected with *a*. and *c*. and both with the Vindyan *udu* &c.

## 11. Crow.

*Kaka*, *kaki*, *kagi*, *kak* &c. Uraon *khakha*, Male *kake*.

Magar *kag*, Singpho *kokha*. This reduplicated form is perhaps connected with the Tibetan *khata*, but it is one of the most widely spread imitative words. *Kha*, *ka* occurs alone and with a second root or postfix *va*, *wa* in Kol and Gond (*kaga*, *kawa*, *kahu*), in the Himalayas (*kahwa* Kir., *ahwa* Limb., *kawa* Murm, *ku* New.) Anam *konkwa*. In Kumi *wa* occurs alone In Asonesian the Dravirian reduplicated form is common, *kaka*, *gaga*, *gagak* &c.

## 12. Day.

*a. pagal*, *pagil* &c., Gond *pai*; "Sun," paka-lon.

Lesgi *bigula*, "Sun" bak; Ason.—Australian *baga*, *baga-rin* "sun"; Indo-nesian *pagi* &c. "morning"

*b. el* A. Tam, *ullah*, Uraon;

Milch. *lai*; Korea, *lai*; Koriak, *alo*; Arm. or, Iran. *eiere*, *uras*, *hari* &c., Ason.—*ulah*, *alo*, *ira*, &c. &c. Indon; *la*, *ra* Pol.

## 13. Dog.

*a. naye*, *naya*; Toda *noi*, Gond, *nai*; Male *allay*; Ur. *alla*.

*Naye*, *allay*, &c. appear to be contractions of the full ancient Indian form preserved in the Himalayas and Ultrai-dia, —*nangi*, *nagi*, *Murmi*, *nayyu* Gurung, *neko* Mishmi; and its antiquity is proved by its being found in Australian, *nagi*, *nago*, as well as in Savo, *ngaka*. It is Upper Asian, and the terms prevalent there, like the Himalayan, leave it uncertain whether the root is *nak* &c. or *ka* &c. As *na* is a Scythic and Himalayo-Ultrai-dian prefix, and *kui* &c. is very prevalent in Chinese, Tibetan, Himalayan, Ultrai-dian and Asonesian vocabularies, it is probable that *ka* &c. is a distinct root, whether *na* be merely prefixal or a root also. All three occur in Upper Asia,—*inu*, *in*, Aino., Japan; *kai* Korea, *nokoi* Mong; *koi*, *choi*, Lesgi; *nyni*, *nenaki*, *nenakin*

&c. Tungus. The Asonesian *iru, uli, ali* (Indones. Aust. Pol.) appear to be contractions of *kuli* &c.

b. *kukka* Telug.

*Kukkur, kutta* &c., Beng. Hind. Sindh, but the term is found in Indoesia, *koko, kiro, gida*; in Australia, *kota*, and New Zealand; and it is also Koriak and African. The root *kui* &c. is still more widely spread.

#### 14. Ear.

a. *sevi, chevi, kebi kemi, kivi, kavi, kada*; Gond. *kavi* (Todava, *kavi*) It is doubtful whether *se, che* is a distinct root, or merely a modification of *ke*, as appears most probable. If it is a separate root, it may be connected with the Tibetan *sa*. The guttural is found in Bodo *khoma* Deor. Ch. *yaku*, Ultraiidian *naka, nakor*, unless these are derivatives from the Sanskrit *karna*, [in Telinga *karnam*] Hind. *kan*, with which the Drav. is remotely connected. The root is widely diffused. Baraki *goi*, other Afghanistan vocabularies *kan, kad, khad* (Hind.); Fin. Samoiède, *ko, ku, kuo* &c. Korea *kui*; Tungus, *kunya*; Samoid, *kuma*; Turk. *kulak* &c.; Yenesai, *kolo-gan* &c.; Africa,—gura, guru Galla The prevalent Australian *kura, kure, guri*, appears to be connected with the African rather than with the Dravirian form, but as *la, ra* &c. is a common postfix in the Australian as in the Dravirian formation, the root may be of Dravirian origin. The Georg. *kuri* is close to it.

#### 15. Earth.

a. *nilam, nela, nelan*,

The Ultraiidian *ali, le, lai*, may be connected with this root. The Khamti and Tai-lung *nin* is near it. The New Guinea *ena*, Polynes. *one*, may be derivatives. The root is common,—Tibetan, Tungusian *na*; Chukchi *nuna*; Egypt. *tan an*; Mid.-African *enesh* &c.

b. *padavi, padavi; pulova* Singhal.

Lepcha *puat*; Ason.—butat Buol; butang Kis.; budjor Austral.

#### 16. Egg.

a. *sinei* Tam. A.;

Ynes. *shulei*, Samoiéd. *sarnu, heny*; Turk. *simit, semurtka*; Mong. *chara* &c.; Chin. *ch'huu*; Cauc. *hono*.

b. *muttej, mutta, motto, mukshe*.

Simang *maku*. If the root is *mu, ma*, as is probable, it is connected with the Mon-An. *pu, pung* &c. (which see).

c. *guddu*,

d. *tatti, totti*.

#### 17. Elephant.

a. *koliru*; anc. *ana. an, eniga*. Singhal. *alia*.

Dhim. *naria*; Kamb., *tam-rai*, Ka *kanai*; Burm. *anc, ne*, Indon. *ga-siya*.

#### 18. Eye.

a. *nattam* A. Tam. [prob. from Sanskrit].

Kameh. *eleth*; Koriak, *ilet, lalat*, &c. Sansk. *netram*, Pali. *netra*; African,—Tum. *nget*, Danak. *enti, inte*, Malagas *inte* “see”; Indones. *inte, inte*, “see”; Indon. *nihat, lihat* “see,” Bisau “eye.” [see T. U. and Mon.-An.]

b. *kan, kon, kannu*, &c.; Gend., *kank*, Male *kane*, Urao. *khan*. Brahui. *kan*.

Chin. *gan*; Turk. *karak*; Latin *oculus*; Asones. Pol. *kano*.

19. *Father.*

- a. endei, tandei, tande.*  
 M. A.—Kamb. ta, Anam thei; Turk. ata, atai &c.; Chuk. atta; Jap. titi, Urag. atta, tuata &c.; Iranian Cauc. atta, tata, dady, dad &c.; *African*,—Mak. tele, atiti (Jap.) Egypt. atf., (atai chief). *Ason*—Indon. tata-na, tatau, utba, (tua "old", "chief" &c. is a modification of the same root).  
*b. appa, Kol. apung.*  
 Himal.—Ultr. appa, abu, abo, &c. Tib. pha, apa; Mon. apa &c.; Koriak. apa; The root pa, ba, &c. is almost universal.  
*c. amme.*  
 Tungus. ami &c.; Cauc. emen, ima; Georg. mama, (Drav. "uncle"), muma, ma. The root ma &c. is common, but generally applied to "Mother".  
*d. achcham.*  
 Sam. esem, ese; Jap. sei; Ugr. isi &c.; Turk. asio, Mong. ezege; Ghara. ais [see Mon. An.]  
*e. eyyan* This term is perhaps a softening of *d.*, but there are similar Asiatic and Asonesian roots,—*aya, ayu* &c.

20. *Fire.*

- a. szhal.*  
 A. Sam. shu, siu &c.; Turk. oth, ot &c.; Cauc. za, tse, mza, mze &c.; Oset. sing, Pers. seng; Georg. zezchli. Hind. atash, shuala; Semitic, asat, isat &c.; *Asones*:—Sim. us., Komr. husok.  
*b. nerupu, nirpo, nippu.*  
 Arabic, nar; (Kashm. Hind., nar.)  
*c. tiyya, tu.*  
 Turk. ut &c.; Ugr. tu, tui; Tungus. toh, tua; *Ason*:—Indon. tui, tano (Phil.) uta, "heat" New Guinea; uda, New Caledonia. (see *a.*)  
*d. berki.*  
 Singpho, Nag. Gar. van, ver, wal; *Asones*.—Pagai vange.  
*e. kechchu; Gond. kis. Male chiche, Ur. chik.*  
 Yenes. khott; Turk. "heat," kus, kos, kusu; *Asones*.—Pol. kasa.  
*f. Kol singil, sengel, ("Sun", "Day" singi. See a. sing, seng.)*

21. *Fish.*

- a. puzhal* (? Iran. *matsya, piscis, visch, fish* &c. Circ. *psis*; but the Drav. root is probably *pu*)  
*b. min, minau, Gondi, Male min, (Sansk.) Chong mel.*  
*c. chepa.*  
 Sam. chale; Yenes. ise; Ugr. zen, &c.; Cauc. chua, *psis, besuro, chare* &c.; Arm. *tzugn, Semitico-African*,—asa, esa, said; Malagasi *hazan*.  
*Ason*—Indon. isa, asan, tsi, isda &c. (Africa-Sem., Malagasi.)

22. *Flower.*

- a. alar* A. Tam. (? G. U.)  
*b. pu, pua, puva, buvu; Male pup. Ur. phup. Kol. buha, baha, bowh.*  
 G. U. Sunw. pha, Limb. phung, Kar. bungwai; Ultr. pun, pu &c.  
 Chin. fa, we; Semitic pul, ful &c.; *African* wah, pau &c., Malagasi vong, vuna &c. (*Ason*. vona, bunga &c.)

23. *Foot.*

- a. kazhal* A. Tam., kata Kol.  
 Kas. kajat, Karen kha, kho-du, Tangk. akho, ake, Kumi akok, akauk; Cauc. kok, kog, kash; Oss. kach, Georg. kuchchi, Lasi. kassi,

*ku hche, kuska*; Afghanistan,—*khu Deer*; *Ason*.—Indon. *kasa, kaja, kacha* &c.

*b. adi, ori, adugu, hajji, hejje.*

Abor. *ole*; Cauc. *rori* (? Africo-Asonesia *tina, dina, tana* &c. see Mon. An.)

*c. kal*; Gondi *kalk, kev.*

Tib. *kang, Kashm. kor, kwar, Hind. gor*;—*Ason*.—*kokor* (Batan.)

## 24. Goat.

*a. vellei, valladu.*

If the root is *ve, va*, it is connected with the Ultraindian *be, pe* &c. (Egyptian and African *ba*) which has spread into Indonesia. The immediate affinities are African,—*feel Anharsi, ipuri Makua, imbuhri Kosah, kaviri Malagasi, dubila Danakil, iwureh Yoruba* &c. But the root is a Caucasian and Iranian one for “sheep”. Caucasian *mell, mall, beti*; Bengali *mera, bhera*, Hind. *bher bhera* Sanak. Indonesian *biri*.

*b. mka* (see *a*?)

*c. du, adu, adr*; Uraon *era*. This is one of the roots for “cow”.

*d. kuri*; Male *kre*.

Ultraindian *mikreh, makre* Tangk.; probably derived from the Hind. *bukri*.

## 25. Hair.

*a. kuzhal, A. Tam., kudalu.*

Cauc *kodi*; Tib. *kra*, Singp. *kara*.

*b. mayir, mir, tala-mudi* (*tala* is “head”); (Hind. *mar*)

Korea *muri*; Austral. *mori*.

*c. ventruka.*

*d. orama*;

Ost *warrus*; Georg. *uere*; Arm. *law*; *Ason*.—Austr. *uran*.

*e. tali* Male (*tala*, “head” Drav.)

## 26. Hand.

*a. tol.*

Sam. *utal, udam*; Kamch. *tono*; Yenes. *ton*; Turk. *adem*; Cauc. *taalo*; Afr.—*tan, tano* &c.; *Ason*.—*tong, tung, tangan* &c.

*b. kai, kayya, kayi, cheyi*; Gond. *kaik*, Ur. *khakhah*.

N. Tangkui *akhui, kuit*, Bodo *khai*, Khumi *akhu*; (Mon., Anam, *tai, Kamb deih*)

N. Asiatic, Scythic, Cauc, Iranian, Ultraindian &c. *kata, kal, kar, kak, kuik, kuā, &c.*

## 27. Head.

*a. senni:*

Malagas. *saino*; Sansk. *shira*, Cauc. *sh'ha*.

*b. talei, talu, tale, tare*; Gond. *talla*.

Magar *mi talu*, Kir. *tang*; Malagasi *tale*; Rotuma *thilu*; Lasi. *ti*.

*c. maude, mudd* (Hind.)

## 28. Hog.

*a. kezhal A. T.*; Male, Ur. *kis*.

Circ *kashka, kcho*, (root *choa, cho, cha, kha, ka, chun, ton*; Os. Pers. *chug*, Arm. *chos*); Malagasi *kisoa*; Mong. *kachai*; Semitic *khanzir*; Breton *guis*; *Ason*.—*kuis* (Batan.)

*b. panri, panni, pandi, handi, panji, poti*; Gond. *paddi*.

(? Felup *iune, Serakoli bule*.) The Drav. root appears to be *pa* (as

being frequently inserted before *d, r, j,*) If so, it is Himalayan, Ultra-indian, African and Asouesian.

### 29. *Forn.*

*kodu, kombu, komba, komnu, kurr.*

Sunw. guro. Him.-Ultr. *kung, gong &c.*, Chin. *ka* (Ultraind *kau &c.*); Ugr. *keka*; Semitico-Afric. *gung, garong*; Iran. *garn, cornu &c.*; Lasi. *akra, Georg. nka*; Ason.-Sumba *kade*.

### 30. *Horse.*

*a. payim.* This term is confined to A. Tamil. It is probably connected with one of the words for "Cow," *payya* Mal., *Kurgi*.

*b. kudirei, kudira, kudure, kudare, kudre, kadar.*

Beng. *ghota*, Pashai *ghoda*, Dier *god*, Tirhai *kurra*; Yenesai, *kut, kus, kon*; Ug. *kon*; Sam. *kunde, yuda*; Bokhsra *ghunt*; Caucas. *kotu kooto* (Audi); Ason.—*kuda*. The other Scythic form of the root *kon*, is found in the Maniuri dialects—*chakon* Koreng, *Maram, sagol, Chumph*. It corresponds with the Mziégi *gaur, gour*, Hind. *ghora*, Naga *kor, Changlo korta &c.* [Welsh *gorwydd*.]

### 31. *House.*

*a. illam, illu, illa, arra*; Gond *ron*, Ur. *erpa*, Kol. *ora, oa*; (Him-Ultr.) Jap. *ire*; Iran. *alaya* (Sansk.) *aula* (Latin) &c.; Afric.—*arre* Danak. ille Yorub. Ason.—*Sinang hale*, Pol. *hari, Rotnma ri* (Lepcha li).

*b. manei, mane.* (? Circ. *wuna*.)

*c. vidu, uidu*; Male *ava*.

### 32. *Iron.*

*a. karumbon, irumbu, irumba, inumu, karba*, (Him-Ultr. *yogir, yagarah, &c.*)

Cauc. ger. *Afr.*—Haus *karufa, karife*, Shangalla *sha-kar*; Iran. *iron*. The Drav. root appears to be *run* or *ru, nu*, with or without prefixes and postfixes. It occurs in Samoide *ur*, Milchanang *run, rung* (a nasal being frequently postfixed in this language.) Hind. &c. *loha*.

*b. kabina*, Karn. *panna Urao*, (the *bon* of *ka-um-bon* may be the same root.) Kol *merhd, merhad, medh, marhan*; Lepcha *panjing*; Georg. *beresh*; *Afr.*—Galla *sibila*, Saumali *bir*, Danak. *birtr*, Galla *beret* [Georg. *beresh*, Kol *merhd*.] Amh *berut*, Malag. *vi*, Egypt *ba*; Iran. *terrus*; Ason.—New Guinea *puruti* (E. Afr.); binaka Buton, *bunjil Pamp, pungal Tobl*.

### 33. *Leaf*

*a. adei, elei, ela, ele, ire, err, ela*. Male *atge*, Ur. *atkha*; Bodo *lai*. Maram *alui* (see Tib-Ultr.)

*b. aku, Gondaki.*

Chin. *ge*; Turk *kaak*; Ugr. *kor, kuar &c.* Cauc. *g'a*.

### 34. *Light.*

*a. oli* A. Tam. (? *b.*)

*b. velicham, veluturu, belaku, pelch*; Gond *berachi*, Ur. *billi*, Mal. *aveli*; Dhimal *waval*; Manip. D. *war* (see G. U.)

*c. bhaksha Tul.*

### 35. *Man.*

*a. makana*; *ganasa*.

Lau *kon, khun*; Ugr. *watan, kuia, kom*; Yukahiri, *kunshi*; Cauc. *konachoi*; *Afr.*—Suahili *umake* "husband"; Shangalla *gunya* (Yukah.); Ason.—*kaue, tane, kanaka, kanchu*; Ach. *akam* "husband."

*b.* al, alu; Ur. alla, Kol. horro, horh, ho; Mon. *karu, kru*, Ka. *kloe* Burm. lu; Turk. ir, iri, er, arini; Ugrian. *alma ulmo* &c.; Cauc. *olo-chan-chi*; Arm. air; Germ. er; *Afr.*—Mak. *alomena*, Malagasi lahi, olona, Egyp. *rumo* &c. *Ason.*—Austral. *leah, leh, iure*; Born. *are*.

### 36. *Monkey.*

*a.* *kaduvan, kurangu, koranga, koti, kadaga, kodan* Bodo. *Mokhara*. Arabic *kirithi*, *Mahra garat*; *Afr.*—golo. *Ason.*—Indon. *kara, kra, gere, kodeh, gudeh, kate, kita*.

*b.* *manga, munge*; Male. *muge*, New. *moko* (Murm. *mang* &c. Hind. *mainun*).

*Ason.*—monyit, mona, amo, &c.

### 37. *Moon.*

*a.* *pirei* A. Tam; Male *bilpei*.

Bodo. *nokha-bir*; Cauc. *ports, bars, bers*; *Afr.*—Galla. *Tigre werhe*, Danak. *herra*, Felup. *fylein*, Malagas. *volana*; *Ason.*—vola, bulan &c.

*b.* *tingal, tingalu*

Korea. *tal*, Ug. *tilsyé, toles, tilos*, Samoide. *diri*.

*c.* *nela*.

*d.* *zabilli*. (The root *bil* is *a*.)

### 38. *Mother.*

*a.* *inral*,

Turk. *ini* &c.; Tungus. *enei* &c.; Fin. *ene*; Cauc. *ila, illi, ennip, ninu, nana, ana*; *E. Afric.* *ina, unina, inani*, Malag. *nini*; *Ason.*—*ina, inde, inda*, &c. &c.

*b.* *tayi, ayi* (Father *e.*), Male. *aya*, Ur. *ayo*, Kol. *iyó, eang, engan*; Lhop. *Asam ai*.

*c.* *amma*, (Father *c.*) Tib. *Him*.

*d.* *appa, avva* (Father *b.*), Gond. *aval*.

Manip. *aphu, avu, apwi*.

*e.* *talli* (Father *a*.)

### 39. *Mountain.*

*a.* *varei, malei, m'a, male panu*; Kol. *buru*, Ur. *parta*.

Kir. *bhar*; Samoied. *boro, borr*; Fin. *ware, wuori*; Turk. *uba*; Cauc. *mehr*; Sansk. *parva*.

*b.* *kondo, gudda, gudde, konom, kunnu*.

Murmi. *kung, gung*, Newar. *gun*, Gur. *kwon* &c.; Yenesai. *konony, kar, kai*; Turk. *kirr, Pashtu gar*; Fin. *gora, kuruk*; Sansk. *giri* &c.; Georg. *koj, kirde*; Pers. *ku*; *Afr.*—Galla. *gara*; *Ason.*—Indon. *gunong*, &c.

### 40. *Mouth.*

*a.* *vayi, vava, bayi, payi*; Ur. *bai*.

Cauc. *bah, bagga*; *E. Africa*, *affa, aof, af, ma*, Malagasi. *vave, vava*; *Asones*:—*falai, baba, vivi, ba* &c. (Malag.)

*b.* *noru*; (Magar. *nger*; Manip. *mur, mor, mai*.)

Sam. *nal, an*; Yukah. *Tungus anya*; *Ason.*—*ngari, nganga, anka*, Austrl. *ngan*.

### 41. *Moschito.*

*a.* *kosuru, kudu*. *Ason.*—Sumatra. *agas*; Pol. *kutu*.

*b.* *domo*.

*Ason.*—Bis. *tamo*,

*c.* *solle*.



(? Tib.) *Ason*.—Kaili sani, Mur. I. sonney.

#### 42. Name.

per, pera, peru, pesaru, hesaru, pudar; Gond batti paral.

#### 43. Night.

a. al, ira, iralu, iral, rav, regi.

(G. U. hor, mula, ngayul, walo &c., Malagasi alina, aline; E. African bara. *Ason*.—mariri, bouli &c.)

#### 44. Oil.

neyam, ennei, enna, nune, enne, enu; Gond ning; Limb ninge (See T. U.)

#### 45. Plantain.

a. vazhei, vazha, bale.

Korea phatshyo, Semitic muz, mis; *Asen*.—Indon pisang (Mahra mis.)

#### 46. River.

a. varupunal, aru, [Arm. Egypt.] eru, yeru; Kol gara?

Manip. D urai, Tungus. amar, bera &c.; Mong mura, muran; Turk. muren; Fin wire; Cane. kor, hor, or, Georg. orouba; Arm. aru; Pers. arga; Semitic babr; E. Afric.—mura (Makua), mulo, bolan, Egyptian aru; *Asones*.—umala, brang, wara &c.

b. puzha, pa, pole, hole (G. U.)

Sindhi wah; *Afr*.—Galla aba, Shangalla epucho.

c. tude.

Manip. D tu ("water"); Sam. to &c. &c.; *Afr*.—Yoruba ado. [A widely diffused root. See T. U.]

#### 47. Road.

a. neri, dari, dova, (see T. U.)

b. vazhi, pade, hadi, sadi, batte, (Iran. path, paddavi, wat, bat, &c.)

c. Ur. horah. Kol hora, horen, hor, da-hari, Gond. sarri; ? b.

? Mahra horom &c.; Georg. shara, gsa; Pers. rah, sarak, (Kurd re,) see T. U.

#### 48. Salt.

uppu, uppa, upp, (Mon bu.)

#### 49. Skin.

a. adal, tol, tola, tolu, tovalu, torra, Gond tol; Dhimal dhale.

Ugr. towl, tuolye; Turk. tari, tire, dari &c.; *Afr*.—Galla itille; [? *Ason*.—Pol. kili, gili, Indon. kuli, kulit &c. (Sansk. kriti.)]

#### 50. Sky.

a. vin, vanam, manam, minnu, ban, bonu (Ultr. Lau, van, fon, fa, Lungkhe wan, wyn &c.)

Ugr. menen, pil; Turk. awa, pieltis; *Ason*.—wono, Austrl., awan Sabimba, Sambawa, wang Madura, banua Nias, also "country", "land" in this and other Vocabularies, awan "cloud" Malayu &c.

b. mugilu (? megha "cloud," Sansk.)

#### 51. Snake.

a. kadsevi.

b. pambu, pamba, pama, pavu, havu, pamb, pah, para-punu (See T. U.)

52. *Star.*

*a.* vin-min, van-min, minganna, minu, pone-min, Mal. bindeke; Ur. inka, Kol ipil, epil;

Burm. min-ong (U.); *Ason*.—bin-tang.

*b.* chukka, chukki.

Yenes. chogen, Ug. chus &c., Cauc. zuka, za &c.,

*c.* daraya (Hind.)

53. *Stone.*

*a.* kan, kal, kalla, kallu, kal.

Karach. koall, kuol &c.; Yukahiri kell; Fin kalle; Cauc. kera; Arm. khar; Pashtu kani, Sindh kod; *Ason*.—kain N. Austral.; kala Pol. (karang Indon. "Coral", &c., but this may be from karang, a made thing &c.)

*b.* rayi.

54. *Sun.*

*a.* pakalon (See "Day").

Yukahiri bugonshe, Cauc haak, bok, buk, "Day" bu, bigula. *Afr*.—Shangalla woka, Galla &c. wak, wakkak "(God)"; *Ason*.—Australian bagarin, бага.

*b.* poddu, hottu, polutu; *Ason*.—? Pol. polotu, "heaven"; Kagayan bilak.

*c.* pallilli, (? *b.*)

55. *Tiger.*

pul, puli, huli, pili, pirri; Gond. pulli.

Koria pon.

*b.* nari.

Burm. nira; Semitic nahar &c.

56. *Tooth.*

*a.* eyiru A. Tarn.

*Ason*.—Austral. yira.

*b.* pal, palla, pallu, hallu, pall; Gond. palk, Male pall, Ur. pall.

Ugr. pane, pankt, ponk, pu, pin &c.; Cauc. kbili, kibili; *Ason*.—(see G. U.)

*c.* kuli.

Cauc. keichi; *Ason*.—kuni. Kis.

57. *Tree.*

*a.* sedi, chedi, chettu.

Cauc che, pcha, kchad &c. (see T. U.)

*b.* gida.

*c.* maram, mara, men; Gond. mara, Male, Ur. men;

*Afr*.—Makua mere, Kwil, mure; Hind per.

58. *Village.*

*a.* pekkam (? Mal. Jav. pakan "market").

*b.* ur, uru, Gond nar.

*c.* tara.

*d.* desam (Arian),

*e.* palli, halli.

*f.* moda, mort.

59. *Water.*

a. *punal, vellam*

? Hind. *pani* &c, Indones, *bana, banyu* &c.

b. *tanni.*

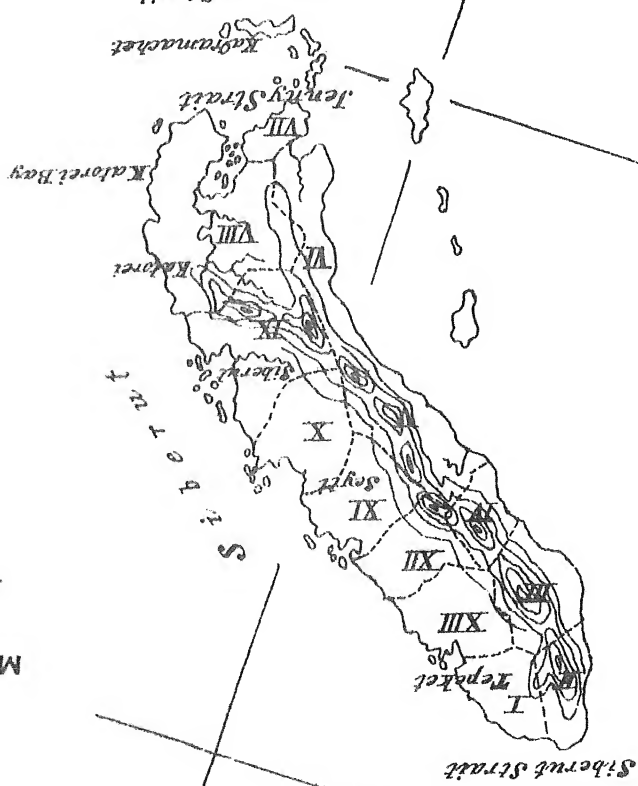
Oss. *dun, don* (see river c.; T U )

c. *nillu, niru, nir,* (Sanskrit *nir* )

60. *Yam.*

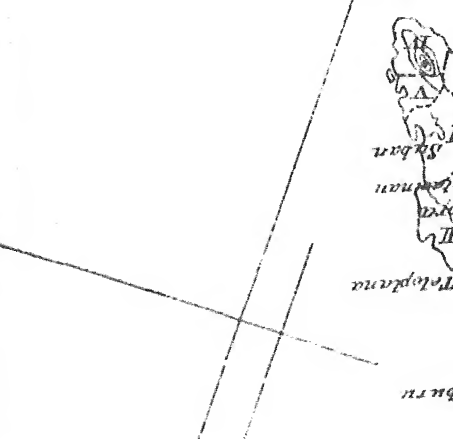
*valli* (Ultr. *bal, wiru, berha* &c.)

# CHART of the MANTAWE ISLANDS sketched by B. von Koenig



## Names of Districts

- |                |                |                 |
|----------------|----------------|-----------------|
| I. Tepaket     | V. Sibiran     | I. Silabanya    |
| II. Sibirigiet | VI. Suban      | II. Timababo    |
| III. Katorei   | VII. Telasman  | III. Simalakoba |
| IV. Sibernet   | VIII. Pora     | IV. Simababo    |
| V. Sibernet    | IX. Sibernet   | V. Simababo     |
| VI. Sibernet   | X. Sibernet    | VI. Simababo    |
| VII. Sibernet  | XI. Sibernet   | VII. Simababo   |
| VIII. Sibernet | XII. Sibernet  | VIII. Simababo  |
| IX. Sibernet   | XIII. Sibernet | IX. Simababo    |
| X. Sibernet    |                | X. Simababo     |
| XI. Sibernet   |                | XI. Simababo    |
| XII. Sibernet  |                | XII. Simababo   |
| XIII. Sibernet |                | XIII. Simababo  |



THE  
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OF  
THE INDIAN ARCHIPELAGO  
AND  
EASTERN ASIA.

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ETHNOGRAPHY OF THE INDO-PACIFIC ARCHIPELAGOES.

By J. R. LOGAN,

Sumatra—Peninsular Province.\*

THE CHAGALELEGAT, OR MANTAWÉ ISLANDERS.

*Sources of Information.*

1. RANDOLPH MARRIOT, "Report," 1749.
2. JOHN SAUL, "Report," 1750 and 1751.
3. THOMAS FORREST, "Observations," 1757.

\* 1, 2 and 3 are found in Dalrymple's "Historical Relation of the several Expeditions to the Islands adjacent to the West Coast of Sumatra," and are only known to me through the use made of them by Mr MARSDEN.

4. [C.] JOHN CRISP, "An account of the inhabitants of the Pogy or Nasau Islands, lying off Sumatra" (*Asiatic Researches* vi, 77, pub. in 1799).

5. [M.] WILLIAM MARSDEN, "The History of Sumatra &c." 3rd Ed. 1811, p. 468 &c.

\* A general description of the ethnography of this province will be afterwards given. Meantime I may refer to the notices which I have already published of the physical Geography and Geology of the Malay Peninsula, (*Journ. Ind. Arch.* ii. 83), of Sumatra and its races (*ib.* iii. 345), and of the ethnic history and languages of the province (*ib.* v. 557 to 575.)

6. [H.] JAMES HORSBURGH, "The India Directory &c." 5th Ed. 1841, vol. ii, p. p. 123 to 128.

7. [Ch.] JOHN CHRISTIE, cited by [V.] P. J. Veth, in "De Mantawai-eilanden ten westen van Sumatra, Inleiding" (*Tijdschrift voor Nederlandsch Indie*, 1849, Aftev. 1-6, 201).

8. [R.] H. VON ROSENBERG, "De Mantawai-eilanden en hunne Bewoners," (*Tijdschrift voor Indische Taal-, Land- en Volkenkunde, uitgegeven door het Bataviaasch Genootschap van Kunsten en Wetenschappen*, Jaarg. 1, Aftev. vi. and vii., 1853).

1, 2, 3. According to Mr Marsden "the earliest accounts we have of the Mantawe Islands are the reports of Mr Randolph Marriot in 1749, and of Mr John Saul in 1750 and 1751, with Captain Thomas Forrest's observations in 1757, preserved in Mr Dalrymple's "Historical Relation of the several expeditions from Fort Marlborough to the Islands adjacent to the West Coast of Sumatra." [M. 468]. It appears from Mr Christie's papers that the object of the visit [? visits] of Messrs Marriot and Saul was to form an establishment in order to induce the natives to cultivate pepper, but the attempt, which is probably that alluded to by Mr Crisp, failed. He adds that it was renewed in 1801, when an establishment was formed on the Straits of Si-Kakap, but the person who was appointed Resident never took charge of it, and it remained under the direction of a Malay till the next year, when it was abandoned after a fruitless expenditure of about fifteen thousand dollars. [V. 211].

4. Mr Crisp—who was a civilian or "merchant" in the service of the English East India Company, attached to the Settlement of Fort Marlborough or Bencoolen—visited the Mantawe Islands in 1792. He left Bencoolen in a small vessel on the 12th of August, accompanied by Mr Best, a military officer. On the morning of the second day they made the southern Pogy and after coasting along it came to anchor in the Strait of Kakap. On the northern island, near the entrance of the strait, they found, at a place called Tungu, some Bencoolen Malays who had resorted there to build large boats, called *cluneahs*,—suitable timber for the purpose being found close at hand. One of these Malays, a man of intelligence, had acquired the Mantawe language during a residence of two years at Tungu, and Mr Crisp was thus enabled to converse readily with the natives. He had also brought with him an interpreter who spoke it tolerably well, and his facilities for intercourse were further increased by finding a native who had resided at Padang and gained some knowledge of Malay. Mr Crisp remained a month at the islands, with the sole object, so far as it appears, of prosecuting enquiries into their manners and customs, which had attracted his attention from their striking peculiarities when compared with those of the Sumatran people with whom he was familiar, and their resemblance to those of the Polynesian tribes, who were at that time exciting the interest and wonder of civilised Europe. In his introductory remarks Mr Crisp says "There is, however, one circumstance respecting the inhabitants of the Nassau or Pogy Islands, which may be considered as a curious fact in the history of man, and, as such, not unworthy of notice. From the proximity of these Islands to Sumatra, which, in respect to them, may be considered as a continent, we should naturally expect to find their inhabitants to be a set of people originally

derived from the Sumatra stock, and look for some affinity in their language and manners; but, to our no small surprise, we find a race of men whose language is totally different and whose customs and habits of life indicate a very distinct origin, and bear a striking resemblance to those of the late discovered islands in the Great Pacific Ocean. It was a confused idea of this circumstance which first excited my curiosity, and induced a desire to make a more minute enquiry into the history of these people than had hitherto been effected; for, notwithstanding the vicinity of these islands to an English Settlement, we, as yet, had but a very imperfect knowledge of the inhabitants. An attempt had been made, between forty and fifty years past, to make a Settlement among them, and to introduce the cultivation of pepper, but this design was frustrated by the improper conduct of the person to whom the management of the business was intrusted. The imperfect account which was given of the people by the person appointed to go to the islands on behalf of the India Company, and another, not more satisfactory, by Captain Forrest, are inserted in Mr Dalrymple's India Directory and, as far as I knew, these accounts constituted the whole of our knowledge of these islands". Mr Crisp does not say that he extended his exploration beyond the vicinity of his place of anchorage, and the information which he conveys, although tolerably comprehensive, is on many points very superficial, and has the appearance of being the result of enquiry much more than of personal observation and actual intercourse with the natives in their own kampongs and houses. Indeed, from the remark that—"Mr Best, a military gentleman of the establishment, with whose company I was favored on this trip, went up to one of their villages",—it may be inferred that Mr Crisp did not consider that his own civil profession justified the exposure of his person on any expedition so hazardous, and that his researches were mainly prosecuted beneath the awning of his vessel, with the aid of his three interpreters, and amongst the natives who visited him on board, as they did daily in their canoes, bringing fruit, fowls, and other provisions. His account, so far as it goes, is painstaking and faithful, and there are few things in which it has not been confirmed by the results of the recent and more enterprising voyages of Mr Van Rosenberg. He also collected a vocabulary of about eighty words, embracing the numerals and the names of the more familiar objects and qualities, but essentially defective from omitting pronouns and particles and giving only two examples of assertives. He furnishes no information as to the structure of the language, nor any materials for ascertaining it save the little that may be derived from an analysis of the vocabulary. His paper is illustrated by figures of a man and a woman, and of the instruments used in tattooing. But as he tells us that he was no draughtsman, and could only answer for the exactness with which he copied the tattooing, under a belief that a comparison of it with that of other tribes might assist in tracing the origin of the Mantaweans, these figures do not pretend to convey a correct impression of the prevailing physical type.

5. The account which Marsden gives of these islands in his well known work, is founded on information drawn from the preceding sources (1 to 4). Most of it is taken from Mr Crisp, with a slight condensation of the language.

7. Mr Veth's promised account of the Mantaweans proceeds no farther than a useful Introduction, in which he notices the preceding writers as well as the slight allusion by Raffles, Hornor and Temminck to these islands—criticises the errors

and confusion in the names that have been applied to them in books and maps, and communicates some information respecting Mr Christie and his manuscript notices of the islands. Mr Christie appears to have visited them from the West Coast of Sumatra for trading purposes during many years. In 1824 he furnished an account of them, principally relating to the southern islands, to Sir Stamford Raffles. In 1825 General de Stuers, the Netherlands Resident on the West Coast, farmed to Mr Christie the privilege of exporting timber from the Poggi islands under the Dutch flag. He established himself there without any European companion, lived on good terms with the natives, and was more successful than the English East India Company's servants had been in "exploiting" them and their land, for soon after settling he despatched two cargoes of timber to Bourbon. The Mantawe chiefs carried their admiration and eagerness to imitate him so far, as to adopt the fashion of wearing spectacles because he happened to use them, and the present of a pair became his reward to those who showed the greatest zeal in his service. A copy of his manuscript of 1824 was received by Mr Veth from General de Stuers, and a few incidental facts from it are found in his introduction to the intended paper in which it was to have been incorporated.

8. Mr H. Von Rosenberg, assistant sub-officer and draughtsman in the Netherlands Indian service on the West Coast of Sumatra, visited the Mantawe Archipelago in 1847, remaining three months, during which he visited the greater part of those islands which are inhabited, pulling from creek to creek and forming engagements with the natives. In 1849 he repeated the same voyage and put in writing the results of his six months explorations. This appears to have led to the despatch of a government steam vessel with a Commissioner, who, accompanied by Mr Von Rosenberg and furnished with his paper, proceeded to the Straits of Si-Kakap, and, after a stay of twelve days, returned to Bencoolen. The objects of the engagements taken by Mr Von Rosenberg and of the Commissioner's visit are not stated by Mr Vogler in his preface to the published accounts of the voyage of the former, but it may be surmised that one of them was to secure the recognition of the Netherlands supremacy over the islands.

Mr Rosenberg's account of the Archipelago and its inhabitants is much more full and minute than that of Mr Crisp, as well as more spirited and graphic. His description of manners, customs, occupations and arts has considerable breadth, and some peculiarities not only in habits but in language which distinguish certain of the tribes from others, have been noticed by him for the first time. He has cleared away the doubts expressed by Mr Crisp respecting their ever being at war amongst themselves, and thrown an entirely new light on their internal relations, by revealing the fact that the inhabitants of Pora and Poggi are in a state of permanent hostility with those of Si-berut, which divides them into distinct nations or confederations, and forms a standing barrier to all mutual intercourse.

The chief deficiency of the memoir is in its observations on the distinctive physical and mental characters and on the language of the islanders. The shape of the cranium is not described. Only a few incidental traits of character are noticed. Mr Rosenberg has not told us anything respecting the structure of the language, or investigated the data which it may preserve for the archaic history of the people, nor has he, with one exception, communicated any examples of native compo-



sition, in the shape of song, tale or proverb—in all of which the unwritten Asone-sian tongues are generally rich. He has, however, compiled a well selected vocabulary of nearly 300 words of all classes, including pronouns. With reference to the ethnographic deficiencies of the memoir, and especially to those relating to physical traits, it should be mentioned that he brought away with him a large collection of drawings, illustrative of the Mantaweans and their arts. Amongst these were figures of seven men and women of different islands, of tattooed heads, of weapons, implements and ornaments of various kinds, canoes, of a Pora village and of women fishing. It is much to be regretted that these have not been published by the Batavian Society of Arts and Sciences, along with Mr Rosenberg's sketch map of the Archipelago. In an ethnographic view—and the memoir is almost purely ethnographic—accurate drawings of the kind, particularly those of heads, have a higher scientific value than any verbal description can possess, and there is no other means by which a comparison with the physical types and with the arts of other peoples can be so readily and satisfactorily made for ethnological purposes. Mr Rosenberg does not inform us in what language his intercourse with the Mantaweans was carried on, but it may be presumed it was Malay, and that the interpretation was of a similar kind to that which Mr Crisp availed of. Although his greater enterprise and activity, guided by a more adequate conception of the requirements of science, and directed for a longer period to the investigation, have enabled him to offer one of the best accounts that have been given of any of the lesser Indonesian tribes, we should not conclude that it leaves no room for further enquiry, or places in the hands of ethnographers all the materials required to fix the position of the Mantaweans with perfect accuracy. Like other descriptions, however excellent, written after a brief sojourn by a stranger amongst a people entirely new to him, it doubtless fails to embrace many traits necessary to a thorough acquaintance with them, gained, as it only can be, by familiar association for some years. The first step to an intimate knowledge of a tribe is the mastery of their language, because in it they have depicted their own mental character, and the grade of their civilisation in all its aspects, with infinitely greater fidelity and completeness than any describer not possessed of it, can attain. Without it, indeed, even the means of obtaining information in reply to questions must be very defective, for, at the best, interpretation is but an unsatisfactory substitute for direct conversation, and when a European, himself perhaps not a very ripe Malay scholar, is obliged to communicate with a native tribe, through a Malay, who in his turn, has only a partial use of its language, the chances are that the knowledge acquired will be more or less tainted with shortcomings and even with occasional errors. When information so gathered comes to be generalised into an ethnic description, by a writer who wants the grand criterion and corrective which the language of the tribe supplies, new mistakes are likely to be made. These are necessarily propagated, and even liable to be increased, when writers who have no personal acquaintance whatever with the tribe, use the materials thus furnished, in their ethnic researches and compilations. The most judicious course and that which is most just to the original authorities, is the one followed by Dr Prichard, who used their very language whenever the necessity of condensation and of re-arrangement of the facts allowed him to do so, indicating the sources of statements when wholly or partially incorporating the words of his authorities in his own text.

*The Land of the Chagalelegat.*—The Chagalelegat are the sole occupants of the Mantawe islands, which comprise three of the seven hilly masses rising, at irregular intervals, on the outer margin of the broad bank of soundings which lies along the mountainous west coast of Sumatra, and marks the true limits, on the side of the Indian Ocean, of the Sumatran belt of elevation. The direction of this subordinate insular band is nearly parallel to the general range of the Sumatran zone, and it is continued in the Nicobar and Andaman groups far up the Bay of Bengal, and to a point which connects it with the partially volcanic elevations of Arrakan and its islets. The Mantawe islands lie in a N. W.—S. E. belt about 250 English miles long and 35 miles broad, extending from about 1° to 3° 40' S. Lat. and 98° 30' to 100° 40' E. Long. The sea included between them and Sumatra is about 80 miles broad at the southern extremity, and 85 miles at the northern. The Sumatran side extends from the mouth of the Massang on the north to that of the Bantal on the south, and embraces the western seaboard of the central and proper Malayan division of the island—the basins of the Siak, Indragiri and Jambi, with the narrow hilly belt between their heads and the sea—the Batta' division lying to the north, and that of the Rejang, Serawi and Palembang to the south.

The nearest group of the band on the north is that of the Batu islands, distant about 25 miles. The only island that rises to the southward is the solitary one of Telanjang or Engano, which is about 175 miles from Mago and Sanding Besar. On the west the islands face the open ocean.

The Mantawe group is a rectilinear one, consisting of three principal masses of land, all elongated in the common direction of the chain, the central one being separated from the northern by a strait about 25 miles broad, dotted with islets, and from the southern by an open strait of about 15 miles in breadth. They are closer to each other than their northern extremity is to the nearest of the other masses,—while all the remaining large islands stand

much more apart. Their rectilinear direction appears to be connected with that of the opposite Sumatran ranges which give nearly the same direction to the coast, as far south as Engano, when it is deflected to the eastward. While Engano, although at so considerable a distance, stands on the same line with the Mantawe islands, the northern portion of the chain—that of Niha, Si Malu &c, lies on a more eastern line. The two elongated Batu islands curve from the one line to the other, and this deflection is coincident with a change in the direction of the Sumatran coast, which advances to meet the outlying elevation of Pulo Pingi in the promontory of Tanjong Tuan, and then bends somewhat to the north.

The southern mass is broken by the narrow and curved strait of Si-Kakap into two islands both called Si-Galagan, [Pake of the Malays, whence Pogy or Poggi, North and South of Europeans, who also call them the Nassau islands]. At a rough estimate it is about 44 miles long with an average breadth of 7 miles, the southern island being narrower and more elongated than the northern. The area may be about 300 square miles. Si-Galagan is surrounded by numerous small islets, and at a distance beyond its southern extremity nearly equal to that which divides it from the middle mass, lie the larger islets called by the Malays Pulo Sanding Kichil, P. Sanding Besar\* and P. Mego, (Biri-laga of the Chagalelegat)†. The sea between the smaller Sanding and the southern point of Si-Galagan is called Adding-ton's channel by Europeans. The middle island of the band,

\* "The name of Pulo Sanding or Sandiang, belongs to two small islands situated near the south-eastern extremity of the Nassau or Pagi Islands, in which group they are sometimes included. Of these the southernmost is distinguished in the Dutch charts by the term of Laeg or low, and the other by that of Bergen or hilly. They are both uninhabited, and the only productions worth notice is the long nutmeg, which grows wild on them, and some good timber, particularly of the kind known by the name of marbau (*metrosideros amboinensis*). An idea was entertained of making a settlement on one of them, and in 1769 an officer with a few men were stationed there for some months, during which period the rains were incessant. The scheme was afterwards abandoned as unlikely to answer any useful purpose".—*Ib.*

† "The next island to the north-west of Engano, but at a considerable distance, is called by the Malays Pulo Mego (cloud island), and by Europeans Triste, or Isle de Recif. It is small and uninhabited, and, like many others in these seas, is nearly surrounded by a coral reef, with a lagoon in the centre. Coconut trees grow in vast numbers in the sand near the sea-shore, whose fruit serves for food to rats and squerrels, the only quadrupeds found there. On the borders of the lagoon is a little vegetable mould, just above the level of high water, where grow some species of timber trees." Marsden, 468,

Si-Kobo [Pora of the Malays, South Pora, Good Fortune of Europeans], separated from the southern by Nassau strait and from the northern by Scaflower strait, is about 34 miles long, with an average breadth of about 10. It has also its attendant islets, amongst which P. Noko, P. Burong and P. Si-Buro-buro (Si-Gere) may be mentioned. The largest island of the group, and the most northerly, Si-Beru [Si-Berut and Si-Biru of the Malays, Mantawe, North Pora, Great Fortune of Europeans] is about 72 miles long and 14 broad, with a surface of about 1,000 square miles. The strait of Si-Berut intervenes between it and the Batu islands.

"Along the east coasts of these islands numerous creeks and bays afford anchorage for ships, but many of them have bad ground and are rendered dangerous and difficult of approach by coral reefs, which rise, almost as steeply as walls, from an unfathomable depth. They are always covered at high water, but at low water are exposed in many places. On these the waves of the ocean, suddenly meeting with so strong a resistance, break with inconceivable violence, producing a surf such as no rocks or storms can occasion in the northern hemisphere.\* The principal bays are those of Tepeket, Kachapugan, Si-Berut, Katorey and Teleleu on Si-Berut; Si-Biribenna, Telo-Dalam, Hurluk's-bay, Telo-Plana, Telo-Aru and Se-Oban on Pora; and Si-labu and Labuan Java on Poggy." [R.]

"Along their whole length the islands are intersected by ranges of hills, the highest summits of which do not rise above 500 feet,† and only in a few places reach the coast and sink with a steep declivity into the sea. The streams are insignificant, owing to the lowness of the hills and the narrowness of the land. The most important is the Katorey, which has a course of about 6 hours, and at its mouth attains a breadth of about 22½ yards." [R.]

The geological formation of the hills has not been described. It probably resembles that of the adjacent groups of Batu and Nias,—aqueous rocks elevated and partially altered by the

\* The surf of the exposed West Coast of Sumatra is strikingly described by Marsden.

† In Nias Hili Mujeia and Hili Machua are about 1,600 feet high.

plutonic intumescence of the Sumatran band, and coming within the occasional influence of the earthquakes, if not of the eruptions, by which the presence of the deeply seated plutonic force continues to show itself at and near the surface. As in these islands, the northern part of the Malay Peninsula and the more eastern parts of the Indian Archipelago, layers of coral and of coralline limestone appear to occur abundantly. Mr Rosenberg found different kinds of limestone and sandstone and also flint and porphyry. Mr Christie states that in those parts of the Pagis with which he was acquainted the rocks were of coral with layers of sandstone. In Raffles' map "chalk cliffs" are marked. No traces of volcanic action, properly so called, and no hot springs have been remarked, according to Mr Rosenberg, but Marsden says, without indicating which of his authorities supplied the statement, that Si-Beru is rendered conspicuous by a volcanic mountain. No metals have been found and no fossils save coral. But as even the few accessible spots that have come under the superficial observation of Europeans, are mostly covered with vegetation and mould, the mineral possessions of the islands may be considered as almost wholly undescribed. The soil consists chiefly of clay—probably calcareous—and a rich black humus. The beach in many places is composed of glittering white sand, the remains of coral and shells that have been ground down by the waves. [R.]

The climate and seasons are the same as those of the adjacent coast of Sumatra, but the position and the narrowness of the islands render the heat less powerful.

The hill ranges are everywhere covered to their summits with trees, and the whole land, as seen from the sea, appears a dense and continuous forest, in this respect resembling other thinly inhabited lands of the Indian Archipelago, the habits of the navigating tribes restricting their cultivation to the low lying banks of the rivers and creeks, while the dread of piratical attacks prevents its extension to their mouths and leaves the seaboard and outlying islets, like the more elevated inland tracts, a jungle. The almost impervious natural forest is formed, like that of other uncultivated lands in this part of the world, of a great variety of

trees and underwood, more or less matted together by hanging and trailing plants. It is only where the ground is a recently elevated coral reef, with a scanty soil, that the absence of a thorny underwood enables the traveller to make his way without difficulty amongst the trees. On the richer soil of the hills timber trees of several species attain a great size and are in much repute on the Sumatran coast. The *bintanġur* (Mal.) abounds, and it is found large enough for the lower mast of a first rate man of war. Several kinds of *Ficus*, the wild nutmeg and probably most of the other trees of the Sumatran forests occur. No plant has been found that is not also Sumatran. Among the most striking of the botanical features of the islands are the long and regular rows of the *Aru* (? *Casuarina*), 100 to 150 feet in height, which grow along the shore in many places. [R., C.]

More prized by the inhabitants than any of these trees are the abundant natural groves of cocoanut and sago palms. The plantain, nipa, pandanus and bambu are equally common, and the jungle yields most of the indigenous fruits of the Archipelago—the durian, mangustan, jambu, duku, papaya, bua chupa &c. [R., C.]

The large carnivora and pachydermata of Sumatra are entirely wanting. Monkeys of different species and the Sumatran deer abound. Various kinds of *Vespertilio*, *Sorex*, *Mustela*, *Viverra*, *Sciurus*, *Mus*, *Hystrix* &c, are met with. The Indian crocodile (*Crocodylus porosus*) inhabits most of the rivers. The iguana (*Varanus bivittatus*) and the tortoise which furnishes the shell of trade (*Testudo imbricata*) occur. The sea and rivers teem with fishes of many kinds, some of which are of a very delicate flavour; these are chiefly of the species *Raya*, *Carcharias*, *Muraena*, *Pleuronectes*, *Scomber* &c. Insects swarm, and amongst the more familiar are bees, wasps, ants of various species and mosquitoes. Land and sea crabs and lobsters of different species, are common. They are mostly of the genera *Portunus*, *Alpheus*, *Ibacus* &c. [R.]

“In this portion of the Indian ocean, nearly all the smaller islands are the production of different kinds of zoophytes which are still continuously labouring to raise their architecture to the surface of the sea, and thus incessantly, although slowly, to form

new islands, which by the decay of animal and vegetable substances thrown up by the waves, acquire a deposit of humus fit for the growth and spread of plants." [R.]

"So long as the reefs remain beneath the surface of the sea, the water on them is remarkably clear and transparent; like a leafless wood we see through it the different corals, decked with brilliant colours, and beautifully coloured fishes with species of *Holothuria*, *Echinus* &c, moving in all directions amongst the coral shrubs. It is in dark nights, however, that the sight becomes most striking. The countless multitudes of these animals then appear to be surrounded by light, and the water is full of small shining specks like stars on a dark blue field." [R.]

*General Condition, Number, Distribution and Ethnic Position of the Race.*—The Chagalelegat are a rude, simple and sequestered race, spread over the four principal islands, living in villages and deriving their animal food chiefly from the sea and the forest, and their vegetable from the natural groves of the sago and coconut. They do not inhabit the smaller islands, probably from dread of attacks by enemies and pirates. They are not found beyond the Mantawe group, either in tribes or as individual settlers. The nearest foreign peoples are the Niha of Batu and Nias, the Malayan tribes of the adjacent Sumatran coast and the Battas to the north of these. At present neither the Nihas nor the Battas have any intercourse with them, and even the Chinese settled in the Batu islands and engrossing most of their trade, do not appear to have any dealings with the Mantaweans. The Malays visit them for timber and traffic, and some of them remain for a considerable time. In the most recent period of their history their knowledge of foreign nations and civilisations appears to have been in great measure limited to the Malays, who alone have been in a position to influence them. Their communication with other races has been only occasional and slight. The numerous foreign traders resorting to the western ports of Sumatra, the Bugis, Madurans and Javanese from the eastward, who visit even the savage tribe of Pulo Tilanjang, and those Bugis who are settled in the Batu group, have not been attracted to these islands. The isolation of their condition

compared with that of the Batu islanders is attributable to their not being connected by language or historical derivation with any adjacent race. The Batuans owe their freer intercourse with other nations to their being an offshoot from the Nihās, a race long connected with the ancient civilised peoples of northern Sumatra—the Battas and Achinese.

The Mantawe population is estimated at about eleven thousand, and the following table by Mr Rosenberg shows its distribution:

Islands.	Districts.	Number of Souls.	Total.	Islands.	Districts.	Number of Souls.	Total.
SIBERUT.	Tepeket .....	1400	7090	N.-POGGY. PORA.	Telaoinan .....	300	1450
	Sibirisiget .....	700			Pora .....	150	
	Matalu .....	800			Simatobbe .....	200	
	Sibelubet .....	600			—	—	1300
	Sibapachat .....	500			Simenganyo .....	200	
	Teleleu .....	500			Simengaia .....	400	
	Telolagu .....	40			Tekaoete .....	50	
	Katorei .....	450			Tekako .....	400	
	Siberut .....	400			Bakutmonga .....	50	
	Seibie .....	650			Silabu .....	200	
	Sembungan .....	300			—	—	1250
	Sibeluat .....	350			Silabanya .....	200	
	Tasiliebat .....	400			Timabuko .....	50	
PORA.	—	—	100	S.-POGGY.	Simalakoba .....	100	
	Sibirribenua .....	150			Simagalo .....	250	
	Sibirriulan .....	200			Timabobo .....	500	
	Sibesua .....	100			Telobulei .....	150	
	Sikichi .....	50			Grand Total....	11,090	
	Sibarau .....	200					
	Seoban .....	100					

All the other islands are without inhabitants, and are only visited from time to time for fishing or other purposes.

*Personal Characters.*—The Mantaweans are of middle size, well made and very muscular. Their height seldom exceeds five feet and a half and many are shorter. Some are remarkably handsome, with finely moulded limbs. The nose is broad and more or less flat, the mouth projecting—but not in the same degree as with the Malays,—the eyes large and bright, the eyebrows thin and only slightly curved, the feet and hands rather larger than those of the Sumatrans and Javanese, the hair fine, lank and jet black, the beard naturally scanty, and the colour of the skin, yellowish brown with a ruddy tinge. The expression of the face is agreeable [R., C.].



Mr Rosenberg thinks they differ entirely in person—as well as in language, manners and customs—from the adjacent races, and strikingly resemble the Polynesians. Mr Crisp makes a similar comparison but limits it to the latter characters. He remarks that “some of them are extremely well made, with fine turned limbs and expressive countenances”. The physical traits are far too imperfectly described for ethnographic purposes, but, so far as they are defined, they lead us to believe that the Mantawe—like the Nihans—are intermediate between the Malay and the finer Polynesian type.

They are robust, athletic, agile, and expert in all the bodily exercises incidental to their mode of life.

They are omnivorous in their food and dirty in their personal habits. Bodily defects are very rare. The most prevalent diseases are fevers and a whitish scaly scurf, which covers the whole person of those who are given to an immoderate indulgence in crocodile flesh [R.].

*Mental Characters and Civilisation.*—Little direct information has been furnished respecting their mental character. It may be gathered from incidental notices and from their conduct to European visitors, that they are good humoured, sociable, obliging, little addicted to war or bloodshed in any shape and very superstitious. They are exceedingly fond of personal ornaments, and give much time to social amusements. Equality, freedom and unrestraint prevail amongst them. In their customs and institutions they are simple.

Crime of a grave character is very infrequent. They are not thievish amongst themselves, but pilfering from strangers appears to be a national and conventional habit, as it is with most rude tribes in which it has not been eradicated by the force or influence of more civilised nations. Crimes are severely punished.

In civilisation they rank much above the savage and naked tribe of Tilanjang but considerably below the Nihans. Their arts are of the kind that prevail amongst all those tribes of the great Niha-Polynesian family that have been least modified by foreigners, and many of which are preserved, even by those who have most largely adopted the inventions of Chinese, Ultradian, Indian,

Semitic and European nations. They exhibit the same ingenuity taste and patience in the production of useful and elegant articles, from the materials supplied by the forest and with instruments of the rudest kind, that have been remarked amongst the cognate Oceanic tribes, but the variety is less than with many of these. The civilising influence on the Mantaweans of the western trading nations of Asonesia who have profited the most from their proximity to the continent, is marked not so much by the reception of improved arts, as by the absence or infrequency of those passionate excesses and savage usages which amongst most of the Niha-Polynesian tribes coexist with a general mildness and docility of character, so long as they remain comparatively sequestered. Their ordinary occupations consist in hunting and fishing, the extraction and washing of the sago meal, the preparation of bark cloth, the collection of wood oil, timber, rattans, wild fruits and other forest produce, and the occasional barter of some of their raw commodities with their Malay visitors. The great feasts sometimes give rise to expeditions for the purpose of killing an inhabitant of one of the islands with which they have a hereditary hostility.

They have no regular sedentary arts, their indoor and home labour being mainly subservient to their open air life in the forest and on the creeks and the sea whence the greater portion of their means of subsistence is derived. The house and garden once made, their highest industry and skill are employed in the fabrication of canoes, weapons and implements for killing and snaring game and fish. The houses themselves are rude, though large and substantial, and the scant culture, in which the men take no part, is still ruder. In carving implements in wood and in plaiting grass, rattans &c, they show considerable ingenuity. The Malays supply them with a small quantity of cloth, with parangs, or chopping knives, copper wire, and the iron work of their weapons which they themselves polish.

The cultivation of rice and fruit trees, spinning and weaving, working in iron and copper and the other advanced arts of their Sunnatran neighbours are not practiced.

*Language.*—The language is soft and harmonious but it is less vocalic than that of the Nihans and that of the Tilanjangs, which adhere

more closely to the prevalent phonology of eastern Indonesia and Polynesia. Its proper phonetic position, as I have remarked in another place, appears to be between Nihan and Batta, with both of which it has more affinity than with Malay. The structural character can only be imperfectly gathered from an analysis of the short vocabularies that have been published. It has the common Niha-Polynesia prefixes, *si-*, *se-*, *a-*, *e-* for substantives, *me-*, *ma-*, *mo-*, *m-*, sometimes *na-* (Batta) for qualitatives, the same particle in the forms *me-*, *be-*, *meng-*, *peng* for assertives; *ka-* occasionally assertive. From the phonetic, structural and glossarial character of the vocables, it is evident that the basis of the language is Niha-Polynesian like that of hundreds of others still extant in Asonesia. It has been modified as Battan and Malay have been, but in a much less degree even than the former, although it is remarkable that it approaches nearer to it than Nihan and Tilanjang do. The extent to which it deviates from the archaic ideology of the Malagasy-Polynesian or Oceanic formation, and approximates to the simpler Utra-indianised or Malayan type cannot be ascertained from an examination of a vocabulary.

For an exposition of the language in its entirety, as a reflection of the mental character and culture and of the range of ideas, proper to the Chagalelegat, we must look to future research. Some remarks on the glossarial affinities, with reference to the history of the people, will be found in a subsequent page.

*Spiritualism.*—The Mantaweans retain the pure naturalism which was common to all the Niha-Polynesian tribes before Hinduism was introduced into Indonesia. Whether it has received any peculiarities in this secluded archipelago is not yet known, but there is nothing in what has hitherto been ascertained to distinguish the spiritualism of the Mantaweans from that of the Borneon, Moluccan and other eastern tribes who have not engrafted Hindu, Mahomedan or Christian ideas on the ancient faith of the islands.

They believe in a great number of malevolent spirits (*sinetu*) who dwell everywhere, in the forests and caves, in the air, in the waters and below the ground. They cause thunder and lightning, heavy winds and rains, conflagrations, inundations and earth-

quakes. They do not make images of the spirits, nor appropriate places for their invocation, and they pay them exceedingly little reverence. When they have need of the aid of one or more of the sinetu, the village chief, who exercises the priestly office, goes to the nearest forest to invoke them. They imagine that the spirit answers in the Mantawei language and with a voice like that of an old man. [R.] The chiefs are also the physicians. When sent for by a sick person, the chief, after visiting him, repairs to the neighbouring forest, and there calls on the bad spirits to help him in his search for herbs that may be useful to the patient, not forgetting to threaten them with his wrath in case of refusal. They occasionally sacrifice a fowl or a hog before entering on an enterprise, in sickness, or when they have any other cause for believing that the spirits are offended and need to be propitiated. [C]. The scull in general, but sometimes merely a piece of the skin of all animals slain by them, is hung from the beams of the roof, as an offering to the sinetu. [R.]

Of a transmigration of the soul or of a life after death they have hardly any idea. [R., C]. The inhabitants of Pora however believe that the souls of the deceased are conducted by those of their relations who have died before them, to an islet lying on the north coast of that island, and are there transformed into devils, for which reason the Mantaweans name it Devils-island. [R., H]

Owing to the gloomy character of their spiritualism they are superstitious in the highest degree. They never undertake anything of importance without first consulting a kind of oracle. One of the chiefs kills a fowl and cuts out the stomach, which, after having been opened and carefully cleansed, is stretched out against the light, when a favorable or unfavorable augury is drawn from its lines and spots. Whenever a stranger enters a house, in which there are children, their father or a relation takes off one of the ornaments with which they adorn their hair, places it for a short time in the visitor's hand, and then returns it to the child, who is by this means protected from the evil influence which the sight of a stranger would otherwise exercise. Although they may have felled a large tree, for some necessary purpose, with much labour, and dragged it with still greater exertion to the village

yet they will immediately abandon it where it lies, should a snake, as often happens, creep along or across the path. In this singular custom is to be found the principal reason, why the completion of the large houses occupies so long a period. [R.]

It will no doubt appear, on more exact information being obtained, that their gods or spirits have more individuality than Mr Rosenberg's account would indicate. The son of one of the chiefs who visited Sumatra in 1783 spoke thus of the national religion. "As to religion, he said the *rajas* alone prayed and sacrificed hogs and fowls. They addressed themselves in the first place to the Power above the sky; next to those in the moon, who are male and female; and lastly to the evil being whose residence is beneath the earth, and is the cause of earthquakes" (Marsden p. 473).

In their tales and traditions, of which they have a great number, the bad spirits generally occupy the most prominent place. The following is an example:—"When these islands were still waste and unoccupied by man and served only as the haunts of evil spirits, it happened once that a sinetu went out to fish. Having cast his net into the water, he brought up from the deep, in one of his first hauls, a bambu case closed on all sides. Curious to see the contents, he opened it, and to his amazement there emerged from it four small human forms, which exposed to the light of day immediately grew to the ordinary stature of mankind. Delighted with this unlooked for acquisition, the spirit would have taken the four men with him, considering them as his lawful property. They, however, not relishing this, ran away from him and so effectually hid themselves that he lost all trace of them. Tired with his fruitless search he fell asleep, his head still filled with his wonderful draught—no wonder then that he dreamt of it. He beheld amongst other things, his four men busy at a certain place clearing the high forest and turning up the ground, on which he presently saw all kinds of fruit bearing trees and plants planted and flourishing. The four fugitives had dreamt the same dream, and on awaking were astonished to find all the fruits and plants of their dream-land lying beside them. For the spirit,—who had soon awoke—by following the indications of the place

given in his dream, had succeeded in tracing his runaways, and, while they were still asleep, had gathered and placed beside them all the fruits. The four wanderers, acting on the suggestions which had thus been made to them, set to work, and after they had planted and sowed, all the plants immediately became full grown and bore blossoms and fruit. To protect these from vermin the spirit changed himself into an iguana, without the four men being aware of it, and placed himself in one of the surrounding trees to keep his watch. It had not lasted long when a very large monkey came out of the jungle, who in spite of the presence of the iguana eat up the greater portion of the fruit. The men on their return, finding their loss and seeing the iguana on a tree, asked him if he had done the mischief, when he told how it had happened. Two of the men, however, discrediting his story, seized, slew and eat him. They had hardly finished their repast when they fell lifeless as a punishment for their disbelief and cruelty. Their corpses sunk into the ground, and from the spot there sprang up the Ipu tree, from the leaves of which the Mantaweans afterwards learned to prepare the poison for their arrows. The two survivors, husband and wife, lived long and happily, and were the progenitors of the Mantaweans." [R.]

*Dress and personal adornment.*—Nothing more strongly evidences the remarkable seclusion which the Mantaweans have maintained during the long period in which Indian and Ultraindian arts have prevailed in Sumatra, than their retention of the ancient Himalayo-Polynesian dress and adornment—bark, leaves and tattooing. This with their other eastern habits and the character of the language, has led some writers to imagine that they are a sporadic people totally unconnected in origin with the Sumatran tribes, and probably of east Indonesian or Polynesian origin. But vestiges of the same customs are found in Sumatra and the Malay Peninsula as well as, more abundantly, in Borneo and the northern and eastern islands of the Archipelago, and the tribes who have learned to manufacture cloth, conspicuous as they are by their population, civilisation and predominance, are the real exceptions. It is the Malays not the Mataweans who deviate from the prevalent Oceanic usages.

The mode of tatooing is the same that is followed, with slight differences in the material and form of the implements, from the Himalayas to Polynesia. This painful operation—which both sexes undergo—is performed with a copper or iron needle one end of which is fixed in a piece of palm-wood, about eight inches long, which is softly struck with another piece of wood to pierce the skin. A mixture of ashes, burnt resin and a vegetable sap are then rubbed in, by which an indelible, bluish-grey colour is communicated to the tatooing.

According to Mr Crisp the lines of the intended figure are first traced in this pigment with a stalk of dried grass or bit of stick, and the point of the tatooing wire is also dipped in the pigment. When the children are six or seven years old they begin to imprint a few outlines and gradually increase them till the youths are marriageable. The figures for each sex are always the same, the only variation being in the extent to which the outlines are filled in. They are very simple and there are no professional tatooers. For males the principal tatooing consists of a broad triangular or heart-shaped figure on the breast, the outline of which is first marked in the twelfth year. By the time the marriageable age is attained the body of this figure is completely filled in, and it serves as a token that the youth has entered on manhood. From this period no further lines are added, but those already marked are by degrees widened, according to individual taste and choice, up to the greatest age. Besides the breast figure a narrow band is marked down the side of the neck to the shoulder, from the shoulder to the wrist, from the waist to the knee, round the arm above the wrist and elbow and round the leg above the ankle, while parallel lines encircle the waist and are carried down the abdomen. The women, having a greater portion of the person covered than the men, are less tatooed; the hands and legs being with them frequently omitted altogether. They also want the breast-figure, and instead of it have a line of tatooing running from the chin to the lower part of the abdomen, in connection with some stripes which cross each other at a point on the shoulders. In the district of Seybi or Si-berut, the men, in general, have a round in place of a triangular breast-figure; others, however, have it more oval

and running out above to a point. In the tatooing of the hands there is also some diversity. [R., C.]

The Mantaweans, like many other Asonesians, file or grind their teeth to a point. [C].

The hair by both men and women is usually worn hanging loose over the shoulders, or in a knot fastened at the back of the head. Some cut it off above the forehead in a straight line from temple to temple. All the hair on the rest of the person—that of the eyelids included—is carefully plucked out. Occasionally, but only as an exception, an old man may be seen with some hairs on his chin which he cherishes by way of long beard. [R.]

The whole clothing of the men consists of a piece of prepared bark two to three yards long and about four inches broad, usually coloured yellow with turmeric, which is bound round the waist and passes between the legs. In rough weather some throw over the shoulders a broader piece of bark, with a hole cut in the middle to let the head pass through. For protection against the sun and to throw off the rain, they wear a hat made of the outer bark of the sago palm, light but of formidable size with a very broad rim, and running to a point. Some also bind a cloth round the head or cover it with a bunch of green branches and leaves. The children run about entirely naked till their eighth year. In the house the women wear round the middle a square piece of bark, which is sewed on the outer side with thread of their own making, and on which a number of yellow stripes are painted, or they substitute for it a piece of coarse blue, white or red cotton, ornamented at the sides with corals. Out of doors they place round the throat and hanging over the bosom and shoulders and round the middle, a covering of finely frayed and loose plantain leaves; and on the head an obtusely conical and deftly plaited hat, also made of plantain leaves, and at the apex often ornamented with a bunch of dry grass. Being placed obliquely on the head, this piece of costume gives them a very singular appearance. [R.]

Men as well as women are remarkably fond of ornaments and finery, which are partly made by themselves, and partly procured from traders. On the forehead most of the men wear a small



copper plate, wound round with copper wire, or a small bambu case, also intended to hold the apparatus for striking fire.

The people of the northern districts of Si-berut fasten the hair with a curiously plaited band, adorned with corals, and wear in the ears a piece of thick copper wire, twisted into a spiral form, and also a pair of pincers ornamented with feathers, which serves at the same time to pluck out the hair of the beard. The men as well as the women are fond of adorning the hair itself, the forehead and the ears, with flowers and leaves, the favorites being the *buñga raya* or *kembang sapatu*. Around the throat and arms are disposed various kinds of small chains and bands. For the first they prefer corals of a dull blue colour, which the women often have hanging from their necks to the weight of 6 or 8 pounds, and to procure which they will sell everything they possess. On Si-berut only, thick copper rings are likewise worn by the women all along the forearm, while the men have one or two of these rings on the upper arm. The waist is also ornamented with different kinds of bands, mostly consisting of some stripes of rattan dyed red, 8 to 12 yards of copper wire, and a black or yellow cord made of the root of a plant plaited by themselves. Amongst the ornaments may also be reckoned the yellow shields of the forehead, cheeks and palms of the hands, on which some paint shining black stripes. In general, however, this is only done when they are at war, the men then arraying themselves in all their finery. [R.]

Although the cocoanut is so abundant they do not use the oil, and as combs are also unknown, the matted hair swarms with vermin which, like most rude Asiatic tribes, they consider a dainty. [C].

*Houses and Furniture.*—In the kampongs or villages—which always lie along the bank of a navigable river or creek—the houses are spread irregularly and as the shape of the ground best suits. They are of two kinds, —large houses in which 30 to 40 families live together, and small ones adapted for one only. The former—which are always the property of a chief—have a length of 180 to 200, and a breadth of 30 to 40 Rhineland feet. The whole is, as it were, nothing but a colossal roof covered with the leaves of the

sago, having arched side walls, and a beam projecting from the ridge at each end, and running to a point. The flooring is of plank or spars of nibong. The doors are oblong openings in the roof about 3 feet high, and may be closed with smaller planks. Other openings there are none. On account of the marshy ground the building rests on posts 10 feet high, and for the same reason, long platforms covered with planks and split nibong are erected alongside of it, giving entrance to the interior, and reaching by a succession of steps, to the side of the river. The interior consists of a wide apartment, embracing the whole length of the front of the house and devoted to common use and for a general gathering place for all the inmates. From this a narrow passage runs through the middle of the house, on either side of which are found a great number of small pens which serve as the sleeping and cooking places of the different families. The smaller houses have simply a front and a back room, and in other respects are constructed like the large ones. For the erection of a large house two to three years are commonly required. All who take a part in the work have a right to live in it. It may be easily conceived that it is very dark and dirty inside. From the fires continually kept up—owing to their not using oil—the roof and walls are blackened with smoke. As ornaments the Mantaweans place on the rafters which support the roof, a variety of images of animals carved in wood and coloured. The ladangs or garden-houses consist mostly of a single roof, with a light enclosing wall, and placed at the same height from the ground. As the banks on which the kampongs and garden-houses stand are frequently steep, strong trunks of trees with steps cut in them are placed sloping down to the water.

The furniture is very simple and consists of few articles. A bambu case, more or less ornamented, serves to hold their finery and clothes; large tortoise shells, having plaited work beneath, are suspended along the beams and applied to the same use. The bed consists of two or three long pieces of palm bark, joined to each other by rattans, over which those who can afford it spread a Sumatra mat, and those who cannot, a broad piece of prepared

bark. The whole is surrounded by a thick cotton cloth for protection against the numerous mosquitoes. In the day time these beds are rolled up and secured to the rafters. [R.] Like many other Asonesians, including even the civilised Bugis, the Mantaweans are uncleanly in their household habits, the space below the floor serving at once as a pen for their hogs and fowls and a receptacle for filth of all kinds, which is dropped through any of the openings in the floor. In their persons they are also dirty. [R.]

*Food.*—The chief article of food is sago, boiled in sea water and then mixed with finely grated cocoanut. They eat this dish without the addition of any condiment, the manufacture or use of salt being quite unknown to them. Although they know as little the culture of rice, they show a great relish for it whenever it is procurable from the trading boats. Large quantities of cocoanuts are consumed as well by themselves as by their domesticated animals, which receive no other food. They also have yams, sweet potatoes, plantains and they use all kinds of edible fruit that grow in the forest. They are ignorant of the preparation of sugar, palm wine or any intoxicating article and they even do not use betel. But both sexes are exceedingly fond of tobacco. The men inhale it from neatly cut wooden pipes, while the women are accustomed to wrap their weed in a bit of green plantain leaf. In preparing the tobacco the leaves alone are dried and then cut in small pieces.

Like other non-Mahomedan Asonesians and most of the Ultraiadians they use all kinds of animal food within their reach, giving the preference to the flesh of the monkey which they eagerly hunt. They also eat the crocodile, snakes, lizards, fish, shell fish, sea worms and other animals, the shell fish being devoured raw. Pigs and fowls, including capons, are served up on particular occasions. Only two kinds of eggs are eaten.

In dressing their food—which is principally done by the women—they attend to everything save cleanliness, on which the Mantaweans set little store. The cooking utensils consist of iron-pans, small wooden platters, or, instead of these, of a piece of rough bark, a large mussel shell or a plantain leaf; further of a piece of the leaf stalk of the nipa furnished with thorns to rasp the cocoanut.

The sago is boiled in the hollow joint of a thin bambu, a mode of cooking which the more civilised Indonesian tribes also use in preparing some of their numerous dishes. When they snare or kill animals, the hair or feathers are singed off, the body cut in small pieces, and the stomach and entrails cleansed. The flesh is then, without washing or wiping off the blood, boiled in large iron pans, which they procure from traders. In contrast with the Indian practise they only add to it a small quantity of Spanish pepper.

In the house men and women eat separately, and the children with the latter, but in the ladangs and when hunting or fishing they all eat together. Some kinds of food are at certain times tabooed to married persons, as amongst most other Niha-Polynesians.

*Hunting and Fishing.*—The only occupations which the men regularly follow and in which they shew great expertness are those of hunting and fishing, the women also sharing in the latter. In the chase they use the bow and arrow, and sometimes the spear, besides different kinds of snares. Their principal game are deer, monkeys, squirrels and large birds. In rousing the deer they are assisted by their dogs. For fishing they have large and small nets, rods, lines, spears and long arrows, which they discharge with the bow at the large fish. The women use only a large sweep-net, with which they take small fishes and lobsters along the beach in shallow places. [R.]

*Agriculture.*—Agriculture in the proper sense is unknown, and such gardening as they practice is of a rude and limited kind. When a ladang or garden is first made, the labour of felling the forest and clearing the ground is performed by the men. When this has been done they give themselves no further concern with it, the cultivation falling entirely to the lot of the women, who plant sugar cane, sweet potatoes, yams, plantains, turmeric, chilis and tobacco.

The implements are choppers which the women always carry with them—as the men their weapons—pointed pieces of wood to turn up the soil, and plaited baskets and hampers for bringing home the produce.

*Preparation of Sago.*—The sago and cocoanut grow naturally

and are not cultivated. The sago tree when ripe is cut down and the pith extracted. The mealy part is separated from the fibrous by maceration and treading it in a long trough constantly supplied with fresh water, the meal is preserved in bags made of a species of rush. A single tree sometimes yields as much as two hundred pounds of sago.

*Preparation of bark as an article of dress.*—The tree which yields this bark is called *wake* by the Mantaweans and *trok* by the Malays. The coarse outer bark of the tree is first removed. The soft inner bark is next beaten with a piece of soft wood to lessen its adhesion to the trunk, and is then carefully stripped off, and freed from all woody fibres that may be attached to it. After being steeped in water for 3 or 4 days, it is again beaten till it possesses the degree of softness desired. [R.]

*Preparation of Planks.*—The trunk of the tree is split by means of axes and wooden wedges, and the planks are then cut into shape in lengths of 18 to 20 feet, and with a breadth of 2 feet and a thickness of 3 inches. The principal woods used are the following:

1. Katuka, a thick tree with yellowish and durable timber.
2. Ogla (Kayu balm (?\*) of the Malays), a large tree, with hard wood of different colours.
3. Serikdik (kayu reboan M.), a large tree, with hard and fine grained wood of a yellowish colour, and very well adapted for carved work.
4. Lalosik (kayu madang M.), a thick tree, with hard wood of a whitish colour.
5. Buluk seseo (kayu umbu M.), a middling sized tree, the wood of which is yellowish and tolerably hard.
6. Pintauro (kayu bintang M.), a thick tree, with very hard dark brownish-red wood.
7. Dokod (kayu pinago M.), a large tree, with wood of middling hardness and yellowish white.
8. Aedu (kayu arang M.), a tolerably large wood with jet black wood, as hard as iron, a species of ebony.

\* Quere as to the orthography which is inconsistent with Malay phonology.

9. *Ingera*, a tree of middling size, with very hard and durable wood, of a red brownish-yellow damasked colour; it appears to be unknown on Sumatra. [R.]

*Extraction of wood oil.*—From the *ilagat* tree (lagan of the Malays) they extract an oil, by making an incision on the trunk and then gently beating on the bark till a whitish moisture begins to ooze out. When continued beating has removed this moisture, a clear brownish, strongly smelling, bitter, adhesive oil appears, which is collected in cocoanut shells and preserved in bamboos. It is only valued as an article of trade, and is used for rubbing into wood work. [R.].

*Boats and Navigation.*—The only vessels used are canoes made of the stem of a thick tree, which is split and dressed for the purpose, and then hollowed out by a common chopping knife and chisel. They are of different lengths, the smallest being 12 and the largest 56 feet. The largest, which are covered, have one or two masts to which palm-leaf sails are fastened and they can carry forty persons. They are only used for sea voyages, from one island to another. In the small canoes also they often place masts, or they set up at each end a cocoanut leaf to catch the wind, which gives their craft a very odd appearance. The inhabitants of Si-berut always carry in their canoes a small wooden bowl, filled with sand and stones, on which fire constantly burns, in order that they may at once boil or roast the fish and other sea animals which they catch. The other Mantaweans do not follow this custom, but betake themselves for the same purpose to the nearest shore. The oars, especially those intended for the small canoes, are of very light wood, neat in shape and prepared with tolerable skill. [R.]

From the Mantaweans invariably dwelling on the side of a navigable creek on the banks of which their garden lands lie, and drawing a large portion of their subsistence from the sea and rivers, it naturally follows that they spend a great part of the day on the water, and are extremely expert in rowing and managing their canoes. Without trouble they make them cleave the water with astonishing speed. Even children of nine or ten years old have their

small sampans, in which they fearlessly venture into the midst of the breakers. Rowing is performed by men and women with equal dexterity and in a keeling posture; the man being in front and his wife behind, when only a single couple are in the boat. When the canoes after being used, are brought on shore, they are turned bottom up. The larger boats are placed under a shed close on the beach, on a platform to which a slope is given, to facilitate the hauling up and launching. [R.].

Their maritime art and enterprise are very imperfectly described by Mr Crisp and Mr Rosenberg, and from the following interesting passage in Marsden's notices they would seem to be considerably advanced and akin to those of the navigating tribes of eastern Indonesia, Polynesia and Micronesia. "In the year 1783 the son of a raja of one of the Pagi Islands came over to Sumatra, on a visit of curiosity, and being an intelligent man, much information was obtained from him. He could give some account of almost every island that lies off the coast, and when a doubt arose about their position, he ascertained it by taking the rind of a pumplenose or shaddock, and breaking it into bits of different sizes, disposing them on the floor in such a manner as to convey a clear idea of their relative situation. He spoke of Engano (by what name is not mentioned) and said that their boats were sometimes driven to that island, on which occasions they generally lost a part if not the whole of their crews, from the savage disposition of the natives. He appeared to be acquainted with several of the constellations, and gave names for the Pleiades, Scorpion, Great Bear and Orion's belt. He understood the distinction between the fixed and wandering stars, and particularly noticed Venus, which he named *usutat-si-geb-geb* or planet of the evening. To Sumatra he gave the appellation of *Seraihu*" [Se-Raihu].

*Trade*—Although the Malays of Sumatra have long carried on a trade with the Mantawe islands, it has never been so large as it might be, and is at present confined to 3 or 4 panchalangs. It is entirely one of barter, the islanders being unacquainted with the use of money, and as the exchangeable value of most commodities has been fixed by usage from of old, there is very little fraud. The principal articles of import are coarse choppers, spear heads of iron, blades for swords and daggers, axes, files and steel for striking

fire, corals of various colours, iron pans, wooden boxes, shears, small looking glasses, needles, copper wire of different thicknesses, toys, coarse plates, handkerchiefs and coarse cotton of different colours. The exports consist of cocoanuts, planks, sago, tortoiseshell, bark, tripang, wood oil and cordage. The advantage of this trade is chiefly on the side of the Sumatran visitors, who make a great profit on the articles exchanged. [R.]

*Calendar.*—Rude as the Mantaweans are they have a mode of reckoning time. Their year is about ten of our months in length, and is divided into two equal portions, the one being termed Akau and the other Rurau. The former takes its name from a species of land crab, (akau) which issues from the ground in the month of May, and is caught in large quantities by the people who consider it a dainty. In about five months these animals by degrees decrease, and then begins the second period, which derives its name from the southwest winds that prevail during it. \* [R.]

*Arms and Warfare.*—"Their weapons are the bow and arrow, spears, short swords, daggers and shields. Fire arms they have none, and they are extremely afraid of them. They fabricate their weapons well. In shape they altogether differ from those used by their neighbours. The blades of the spears, swords and daggers are imported from Sumatra in a roughly wrought state, and they devote much time and labour to polish and sharpen them. For the shafts of the spears and handles of the daggers and swords they use woods more or less hard and fine grained, which they handsomely carve and polish. The hilts of the daggers are crooked, and at the extremity ornamented with the head of some animal. The sheath is of light wood and dyed red,—flat or forming a long curve. That of the sword is simply a piece of sago tree bark. The very small shield is broad at the top, and pointed below, made of very light wood, and painted on both sides.

"But the principal and the proper weapon of the Mantaweans, is the bow and arrow. The bow is usually 4 to 4½ feet long, and is made of the wood of the kayu langko, which is black and very hard and strong. The string is a piece of strong twisted bark, furnished with loops at the ends, and several times smeared with

\* Mr Rosenberg does not explain how this calendar is adjusted to the solar year and the seasons.



a mixture of oil and melted resin. The arrows are kept in a bambu quiver, more or less ornamented. A piece of palm bark is placed on it, which at sea or during rain is bound over it, to keep it dry. The arrows consist of two parts, the shaft and the point; the shaft, formed of the leaf-stalk of the nipa palm is very light and notched at the end to prevent it slipping off the string. The point, made of nibong wood, is stuck loosely into the upper end of the leaf-stalk. It is always smeared with poison, and often furnished with a sharp bit of copper or with the jagged, saw-like, backbone of a fish. The poison is concocted of the sap of *umey* leaves, mixed with a quantity of water, in which pieces of tuba root (in itself possessing a great stupifying power), tobacco and Spanish pepper, have been boiled. When fresh this poison is very strong, the smallest wound with the arrow proving fatal within a few hours, if antidotes are not quickly applied. When it is old it loses all its strength. When they go out hunting the bow is held in the hand, and the quiver is fastened to a band or string hanging over the shoulder. The dagger is fastened on the right side in a horizontal direction to the belt of bark. The Mantawean never dispenses with the dagger and bow. Wherever he may be found, he is always armed. Both, but especially the bow, are formidable weapons in his hands. In 50 or 60 shots the arrow rarely misses its mark". [R.].

Their mode of warfare is confined to the laying of ambuscades, from which they strike down all who come within range of their arrows, and then take to flight. They have no idea of fortifying their houses or kampongs in any manner. [R.].

*The Family.*—In accordance with the general habits of the ruder Malayu-Polynesian and Ultraindian tribes, the intercourse between young unmarried persons of different sexes is very unrestrained. Whenever a girl becomes a mother, the child belongs to her parents, so long as her lover is not inclined to marry her. The event is attended with no disgrace or feeling of shame whatever, and, on the contrary, is a recommendation in the eyes of suitors. This license ceases entirely on marriage and polygamy is not practised. A young man desirous of taking a wife, must buy the girl on whom his choice has fallen, from her parents, or, to

speak more strictly, he must barter for her, goods of the value of 50 to 100 florins. The marriage is celebrated by a feast, for which a hog is usually killed. Once married they can never separate. Adultery is punished with the death of both the guilty parties. According to Mr Crisp the injured husband has the right of seizing the property of the seducer, and of cutting off his wife's hair, and when the husband is the offender the wife may return to her parents' house but cannot again marry. On the death of a husband or wife, the survivor can only marry a widow or widower. The Mantaweans do not permit any license even to their daughters with strangers. [R., C.]

The children are brought up very gently and bodily chastisement but rarely falls to their lot. Some time after birth they receive their names, which have generally a rather strange sound. From an early age the boys are trained to all bodily exercises, climbing, rowing, swimming, shooting with the bow &c. In the first three the girls are little behind them, and the women can climb a cocoanut tree with as much agility as the men. [R.].

On the death of one of the parents, the inheritance is shared amongst the children, and when there are none amongst the nearest relations. [R.] According to Mr Crisp the sons alone inherit.

*Disposal of the Dead.*—The mode of disposing of the dead is the ancient and still widely prevalent Ultraindian and Niha-Polynesian one of exposure in the open air on an elevated platform, (*rati aki*). Shortly after death the body is lifted up as it is by the men who are at hand, and carried to a place in the forest set apart for this purpose. On the lower branches of one of the trees, at a height of ten to fifteen feet from the ground, a platform of strong lath work is constructed, and on this the corps is laid, naked and exposed, and left to decay [R.] The bones are not afterwards collected as is the custom of some tribes but are suffered to lie on the ground when they fall. [C.] A small quantity of corals and other ornaments is all that they bestow on the dead. Having deposited the body the bearers depart as fast as possible, for they believe such places to be favorite haunts of evil spirits. No reward will induce them to visit the place of the dead save when a new

death renders it necessary, and the duty which this throws upon them is performed with signs of the greatest dread. These spots are generally at a distance from the kampongs, but always in the neighbourhood of some stream. The fear in which they are held is so great, that when passing up or down a river in the neighbourhood of a cemetery they always pull for the opposite side, and row as close inshore as possible, hushing all clamour. [R.]

The inhabitants of some of the islands make an exception to this mode of disposing of the dead. The body is with them laid naked, and resting on the right side, in a tolerably deep grave. Some earth is thrown over it to a height of four or five inches, nipa leaves are then placed across it, and the grave is finally covered over, throughout its whole length, with some thick branches. [R.]

*Government.*—The Mantaweans have not risen above village government. The different villages of the same island do not acknowledge any supreme chief, nor have they any regular political union, although their intercourse and common enterprises maintain a certain degree of mutual dependence. The society is a democracy under petty chiefs who have very little authority, a system similar to that which prevails amongst the less Indianised tribes of UltraIndia and Indonesia. There is no royal, noble, or sacred order. We are not informed whether the chiefs are hereditary and whether their followers are confined to the members of their own clan or family. It is probable that they are the heads of families, for there are several in one village. They have no privilege save that of presiding at feasts, nor do they receive any marks of honour. They have no judicial authority, disputes and offences being tried by meetings of all the villagers. Their ordinary functions are those of priest and physician, and the only offerings they receive are from those who have occasion for their services as such. They have the Javanese title of Pangeran.

The intercourse of the villagers is free, unconstrained and friendly, but with a considerable tinge of selfishness. Thus when persons belonging to same the house have been successful in hunting or fishing, they never think of sharing the spoil with the inmates of another house in the village.

*Festivals and Amusements.*—The Mantaweans are much addic-

ted to dancing and music. The dances are performed by unmarried persons only, and properly by boys and girls alternately. They only take place at night in the front apartment of one of the large houses, by the light of burning brands and in the presence of sometimes two or three hundred persons of both sexes. The dancing consists of all sorts of postures and twistings of the body, by which they endeavour to imitate the motions of animals, principally of birds, and during which the heel is from time to time stamped forcibly on the floor. All this is accompanied by the singing of short songs, composed of long drawn sounds, which fall and rise as the measure requires. They are accompanied by the beating of gongs and a kind of drum made of a piece of palm wood hollowed out, and covered on the upper side with iguana's skin. The dancers have the head and hips ornamented with green branches and leaves. The young people also for modesty's sake wear a small square lappet of blue or white cotton cloth hanging in front and ornamented with corals and mother of pearl.

The most remarkable of the village customs are the festivals and the expeditions to murder which are incidental to them. These are not held at regular periods, but any event of unusual importance or solemnity gives occasion to them, such as the death of a chief, the completion of a large house or of a canoe, a particularly fortunate or calamitous occurrence in the kampong, and the like. Such feasts—which the Manta weans celebrate by resting during the day and by gourmandising, dancing, singing and talking during the night—often last one or two months, neither men nor women doing any work all the time for fear of incensing the evil spirits. It often happens that before the festival is over the provisions of the villagers fail. In such a case the inhabitants of the surrounding kampongs supply the feasting village with food being themselves entitled to reciprocal aid in like circumstances.

*Murder voyages.*—To bring such a feast to a proper conclusion the killing of one or more men is not certainly considered essential, but it is nevertheless regarded as an event that will lead to prosperity and hence expeditions with this object are undertaken during the feast. The largest canoe of the village is equipped for a distant voyage. They fit it with masts and palm leaf sails, construct over

the whole deck a strong roofing of planks, and place various ornaments on the bow and stern, both of which run out with a great curve and very thin, to the height of 20 to 30 feet. The weapons are stowed away under the roof, and the provisions in the hold. When everything is ready and the oracle has been duly consulted, the vessel is manned with a crew often amounting to one hundred. The inhabitants of Pora and Poggy are accustomed to steer to the northern part of Si-berut, because the people of that island, in their turn, select the southern islands for the scene of their murdering expeditions. To this barbarous usage is to be ascribed the hatred which the inhabitants of these different portions of the Archipelago have for each other. The people of Tepeketa are the most dreaded of all the islanders on account of their courage and warlike character. On such voyages, in which only men and boys embark, every one decks himself with his gayest ornaments. When the place of their destination is reached, the canoe is anchored by means of heavy stones. Some of the crew then land and conceal themselves in the forest in order to shoot down with their arrows unawares any person who comes within reach. When they have effected their purpose they immediately return to their boat, which proceeds home. If, after some days pass, they have not succeeded, they content themselves with shooting some arrows at the first and best coco or aru tree they meet. It is only when they return that the feast, which has given rise to the expedition sometimes of two months duration, can be brought to a close in the kampong. If they happen to lose any of their own number during the voyage, it is considered as a bad omen. [R.]

*(To be Continued.)*

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NOTES ILLUSTRATIVE OF THE LIFE AND SERVICES OF SIR  
STAMFORD RAFFLES.

In the year 1795, Mr Thomas Stamford Raffles was appointed to be an extra clerk in the India House. He was at that time only 14 years of age, consequently his education could not have been completed; however, the deficiency was supplied by his own exertions in the few leisure hours a close attendance at office permitted. Mr Raffles was early remarked for assiduity and great application to business, and in the year 1805, on the establishment of the Pinang government, he was nominated to the office of Assistant Secretary to that government. Ten years practice and experience in the India House gave the Assistant Secretary many advantages over his fellows in the new government, and he appears to have established, at an early period, a character for ability and official aptitude which attached to him throughout his service. Having been accustomed to mental labour, and the duties of his office not occupying his whole time, he devoted his spare hours to the study of the language, manners, customs and character of the Malays, among whom, for his amiable and courteous demeanour, he soon became esteemed. His house was always open to them, and the natives delighted to visit a gentleman who could condescend to be polite and to take an interest in their affairs. From the advantages derived from this intercourse and his evening labours, Mr Raffles was enabled to distinguish himself, when the opportunity, which was not long delayed, presented itself.

In the year 1806, Dr. Leyden visited Pinang for the benefit of his health, and resided with Mr Raffles for some months. Dr Leyden, whose early death left a void in Oriental literature, was delighted with the industry and evident talent of his host, and, when he returned to Bengal, they continued to correspond. Mr Raffles gave to his letters the style of essays, and the amiable Doctor took every opportunity of bringing them and their author to the notice of his patron, the Earl of Minto, at that time Governor-General. After reading the paper on the Malayan race, (see *Lady Raffles's Life &c.* p. 15), his Lordship told Doctor Leyden to inform Mr Raffles that he was much pleased, and begged that any

further information relating to the Eastern Settlements might be forwarded direct to himself. This was the keystone and the opportunity, and Mr Raffles was prepared to improve it. In the following year he went to Calcutta where he was received with great kindness, and, on his return, was appointed to be Governor-General's Agent for the Eastern Seas, and directed to reside at Malacca. At that time the Indian authorities were occupied in the attempt to drive the French out of these seas, their privateers having done so much damage to English shipping, that no exertions were spared to deprive them of any resting place to refit their ships. The Dutch had been forced into the European war, and their colonies were, in consequence, liable to capture. Mr Raffles furnished the Supreme Government with the fullest information respecting the East generally, and more particularly as to Java, against which place it was determined to send a force. After all the preliminary arrangements had been made, the expedition left India in 1811, to rendezvous at Malacca, to which place Lord Minto came to conduct operations in person. Every possible information had been provided beforehand by Mr Raffles, for the purposes of the expedition, even to the deciding on the best route for the ships to sail from Malacca to Batavia. Lord Minto was so well satisfied with everything which Mr Raffles had done, and had so much confidence in his arrangements, that he decided, although against the advice of all the naval officers, to adopt the direct route, instead of that hitherto used by the coast of Borneo. The expedition started, and on the 18th September, 1811, General Janssens capitulated.

Mr Raffles was appointed to be Lieutenant-Governor of Java and its dependencies, and thus, six years after his arrival in India, apparently without interest, and solely dependant on his own exertions, found himself elevated to one of the highest offices in the empire. It is not necessary here to enter into an extended examination of Mr Raffles' policy in Java. The Dutch before this time had possession only of Sunda and the western part of the island. Under his government Solo and Djojocarta were reduced and the whole island was for the first time brought under European rule. Except in the vicinity of Batavia, the native regents had been

permitted to govern the country as they pleased, provided they were civil to the European officials and supplied their proper share of grain and labour when called on. The revenues had been derived from a monopoly of the retail sale of opium, spirits, toddy, &c., from gambling and cockfighting farms, from transit and customs duties and from the forced delivery of produce at prices below the market value. Mr Raffles introduced a new system. Availing himself of the acknowledged Asiatic right of sovereignty over the soil, he fixed on an equal and moderate land rent, and abolished forced deliveries of produce, right to exact labour and all tolls and imposts which had hitherto been a bar to improvement. Before however sufficient time had been allowed to test the value of the new system, which was obviously a great improvement on that previously in force, Java was restored to the Dutch. No question in connexion with eastern Asia has been more canvassed than the restoration of this island to its former masters. It has been asserted that the national interests were unjustifiably sacrificed, that the real value of the island was unknown, that Lord Castlereagh was imposed on by the flattering attention of the allied sovereigns, who were loud in their praise of the generous magnanimity of the great English nation which had fought the battle of Europe on the most disinterested principles, and that he consented to the restoration without having sufficiently considered the matter. It must, however, be recollected that in consequence of the large military force necessary to maintain possession the expences far exceeded the revenue. The arrangements of Mr Raffles not having then had time to produce the expected results in improving the financial condition of the settlement, he was obliged to draw on Bengal at a time when the treasury at that Presidency was exhausted by the Pindarrie and Ghoorika wars. It was argued, in ignorance of the new financial arrangements and the prosperity expected therefrom, that the Island was not worth keeping, and therefore neither the Crown nor the Company exerted themselves to retain it. In the general political view it must also be recollected that it was the object of the Treaty of Vienna to re-establish the balance of power, and however much the English Minister was ignorant of the great value of Java it is not to be supposed that the Dutch neglected



any means to obtain restitution of what was their most valuable possession. The nations of Europe have always been jealous of the extraordinary power of the English in India, and the opportunity was not lost for depriving them of the great preponderance which the possession of Java would have given them in the East, to the exclusion of another weaker, and therefore, in the event of future differences, more easily influenced nation. This decision was doubtless not uninfluenced by the fact that the English had already deprived the Dutch of all their other valuable Colonial possessions.

The Court of Directors disapproved of Mr Raffles's arrangements at Java and took advantage of the occasion to supersede him, when charges of mal-administration were preferred by Colonel Gillespie, the Commander of the troops. It is not necessary to allude to these charges further, than to state that Mr Raffles found no difficulty in answering them, and that they were most probably brought forward from misunderstandings arising from their relative position as Royal and Company's officers, at a time when it was still expected the Island would be retained by the Crown, and at a time when the Royal officers were accustomed to see in the Indian Civilian the clerk rather than the administrator of empires. Mr Fendall, a member of the Supreme Council, was ordered to relieve Mr Raffles but the island was restored immediately after. The Marquis of Hastings, who succeeded Lord Minto as Governor General, reported unfavourably of the acquisition, and the constant requisitions on the Bengal treasury did not permit the Company to hesitate in their desire to be relieved from a useless acquisition. Lord Minto's early death, after his return from India, precluded Mr Raffles from having the advantage of his Lordship's support, in laying before Parliament and the country the great advantage, in a political point of view, of the possession of Java, and, at the same time, of explaining the vast agricultural and trading resources of the Island, which would soon have had a large surplus revenue, and have afforded an extensive market for British manufactures.

It appeared doubtful, after the capture of Java, whether it would be held by the Royal Government, or be made over to the Company, and Lord Minto's thoughtful consideration had secured

a retreat for Mr Raffles, in the Residency of Bencoolen, in case his services should be no longer required in Java. On his supercession, however, Mr Raffles went home to recruit his health, and, at the same time, to set himself right with the Court of Directors and the public. The charges of Colonel Gillespie were easily disposed of, and his services in Java were acknowledged by the Prince Regent, who conferred on him the honour of knighthood, while the Court of Directors manifested their appreciation of his services by appointing him to be Lieutenant-Governor of Bencoolen, with greater powers than had before been held by the chief of that factory. He was empowered to attend to the general interests of the English in the Archipelago, more particularly as related to the Dutch.

This is the commencement of the second portion of Sir S. Raffles' career in these seas. At an early period of his service at Pinang, he had made himself acquainted with the state and prospects and with the earlier history and commercial relations of nearly every native state in the Archipelago: he had traced the connection of the several foreign invaders with each state, and had arrived at the conclusion that it was necessary for the welfare of the native population that the English should be the paramount power in the Malayan countries, and that the Dutch influence should be reduced.

In Java the Dutch had lost their last position in the Archipelago, their other possessions having been previously captured, and Sir Stamford, for a time, saw his fondest hopes realized: his disappointment, on the restoration of these possessions at the peace in 1815, was consequently very great, and he now set himself to work to counteract the Dutch influence in every possible way. This became the master passion of his life, and is the key to all his after proceedings. He had succeeded in instilling some of his policy into the minds of the Royal and Company's Governments at home, and he was now entrusted with extensive powers to watch over British interests in the Archipelago, under the name of Lieutenant-Governor of Bencoolen, an office in itself, without these extra powers, quite unnecessary.

On arriving in Bencoolen Sir Stamford found everything in a

state of the most extreme disorder, morally and physically. The day before his arrival an earthquake had destroyed the town; while the state of morals among all classes was described as disgraceful to a civilized government. In writing to Sir R. H. Inglis, under date 12th June, 1819, he says, "The state of society, even among the Europeans, was very bad on my arrival. I trust it is improving; an instance has just occurred which which will, I hope, impress on the higher authorities the necessity of attending more closely to the religious and moral character of their establishment." Sir Stamford set himself to work vigorously to improve matters. He found a number of young men on the establishment, who had no adequate duties to occupy their attention; these he formed into committees, presided over by members of his own family, (staff) who had accompanied him from Java; and the promotion of agriculture, education, religion and general amelioration formed subjects of occupation and amusement, where hitherto dissipation had been the only relief from a dull and monotonous existence. The revenues of Bencoolen had been derived from gambling, opium and cockfighting farms, the almost forced delivery of produce at rates below its marketable value, and the labour of the Company's slaves. Sir Stamford abolished the gambling and cockfighting farms and emancipated the slaves. These acts would require no explanation or apology in the present day, but in the year 1819 the policy was too far in advance; and as no adequate provision was made to supply the deficiency of revenue, the moral considerations were not allowed to weigh against the pecuniary loss. The result of these and other operations, about this period, were nearly being fatal to their projector's prospects and position in the Indian service.

While engaged in matters of domestic policy Sir Stamford kept in mind the political duties attached to his office. The Dutch, on being reinstated in Java, had resumed the dependencies on Sumatra;—among others, the state of Palembang, which, previously only in nominal possession, had been reduced to complete subjection by a force under Colonel Gillespie. Their policy has always been aggressive, and now having the state of Lampong under their government they at once came into collision with the English

respecting the boundaries of that state, which marched with Bencoolen. The encroachments of the Dutch were embarrassing and Sir Stamford conceived the idea of forming a Settlement, to offer a check to their further advance. He had already declared Bencoolen to be a free port, but its position was unfavourable for trade, being out of the great routes through the Sunda and Malacca Straits. He demanded an anchorage at Simangka bay, in the Straits of Sunda, in order, as he said, in a letter to Mr Marsden, dated 7th April, 1818, "to be able to set up our shop next door to the Dutch". The Settlement was a failure, and he then commenced the policy by which his name and reputation were ultimately established in the Straits. He had already in prospect the idea of a mercantile competition with the Dutch, as the following passage in the letter above referred to will shew. "It would not "I think be many years before my station in the Straits of Sunda " (Simangka Bay) would rival Batavia as a commercial *entrepôt*." His position at Bencoolen afforded him constant opportunities for experiencing the aggressive policy of the Dutch, who aimed at a universal and exclusive authority in the Malayan countries. In order to oppose this design, and put a check on their further progress in the Straits, Sir Stamford proposed the formation of one or more trading Settlements, which by the more liberal policy of the English would become "depôts" for the trade of the Archipelago. Pinang was situated too far to the north, and traders on going to it from the eastward would be obliged to pass Malacca, soon to be restored to the Dutch. The desiderata of his Settlement were—a convenient place for the Company's China ships to call at for trade or refreshment, for the collection, according to the old established course of trade, of the produce of the Archipelago, and consequent distribution of English goods in return, and for the exercise of a political influence over the eastern seas. In order to carry out this policy it was necessary for Sir Stamford to have the sanction and co-operation of the Supreme Government, and he determined to proceed to Bengal, for the purpose of urging his views on the attention of the Governor-General. The Marquis of Hastings, then Governor-General, on relieving Lord Minto had taken an unfavourable view of affairs to the eastward, and Sir Stamford

had many misgivings as to the success of his undertaking. However, after a few interviews, he succeeded in placing himself on an agreeable footing, and laid his information and views before his Lordship in such a masterly manner that all objections and difficulties were overruled. He returned to the Straits invested, for the second time, with the authority of Governor-General's Agent in the Eastern seas, and with powers generally to oppose the Dutch and, if possible, to form an establishment to the South of Malacca.

Previous to the capture of Malacca in 1795 the trade of Pinang had been confined to the Northern portions of the Peninsula, to Sumatra, and the continent of India. The possession of Malacca, on the highway of entrance to the Archipelago, enabled the Dutch to check any attempt on the part of the Bugghese and other Eastern traders to visit Pinang. By the treaty of Vienna the settlement of Malacca was restored to the Dutch, and it was not doubted but that the same policy which marked their previous occupation would be resumed; and that Pinang, which by this time had acquired a very considerable portion of Chinese, Bugghese and other Eastern trade, would be again divested of these advantages. Major Farquhar, an officer of the Madras Engineers, who had been a long time at Malacca, in a semi-civil capacity, had, after it had become known that he was to restore Malacca, in the year 1816 brought this subject to the notice of the Pinang Government, and pointed out the Carimons as a fit place for a settlement. In the year 1818 he was authorized by the Pinang Government to visit the Prince at that time in possession of those Islands, and he in consequence proceeded to Rhio, then in the hands of the Malays.\*

Major Farquhar found the Rajah Moodah Jaffir to be the only person with whom his negotiations could proceed, and with that Prince he concluded a treaty, dated 19th August 1818, in the name of Sultan Abdulrahman of Johore. The Pinang Government attempted to form an establishment on the Island of Bentan, but before their measures were taken the Dutch had forestalled them at Rhio, and they retired from any future attempt, in the

\* When Malacca was taken in 1795, the small station or dependency of Rhio followed, but, after a short time, the English abandoned the place, which in consequence fell into the hands of the Malays.

conviction that it was impossible for them to effect their object.

Under these circumstances Sir Stamford came down to the Straits, with, as before stated, the office of Governor General's Agent in the Eastern seas and further bound to Acheen where, in conjunction with Major Coombs, Agent of the Pinang Government, he was appointed to mediate concerning a question of disputed succession to that throne. Colonel Farquhar, on the cession of Malacca, was proceeding to England, when it occurred to the Supreme Government that his local knowledge, the result of 15 years duty at Malacca as Resident and Commandant, might prove useful in the formation of the new settlement in the immediate neighbourhood of his former Residency. Sir Stamford was furnished with a letter to him, dated 28th November, 1818, in which the thanks of Government were conveyed for his able report of his negotiations under the direction of the Pinang Government, and a desire was expressed, on the part of the Governor-General, that the benefit of his further services might be secured to improve the relations already established with the native chiefs. His Lordship now requested him to accompany Sir Stamford Raffles in his expedition, and to take charge of the infant settlement, under the directions of Sir Stamford, who would be obliged soon to return to his own Government at Bencoolen.

Sir Stamford sailed down the Straits in company with Colonel Farquhar, past Malacca, to the south of which place their station was to be fixed. Siak was easily given up, when they proceeded to the Carimons, which place had been pointed out by the Colonel as a proper site, but on examination it proved to be inconvenient in point of capacity as a harbour, and they went on towards Johore to which locality Sir Stamford's views were then directed. On passing through the Straits of Singapore Colonel Farquhar suggested that they should land to visit the Tumonggong of Johore, who had lately settled himself on that island, and who was known to the Colonel. On arriving in the harbour the evident advantages of the place struck them both, and they determined there to attempt the formation of the Settlement. Colonel Farquhar went on at once to Rhio to request that the permission, which had formerly been given to him by the Rajah Moodah to form a Settlement on the Carimons, might now be extended to Sin-

gapore. The Dutch, however, ere this had resumed their former position of Lords Paramount in the Johore Archipelago, and had already exacted a treaty from the Rajah Moodah and his creature Sultan Abdulrahman, restraining them from granting a footing to any European power in Johore. After some management, however, Colonel Farquhar succeeded in obtaining an implied permission with which he returned to Singapore, where Sir Stamford concluded a treaty with the Tumonggong, dated February, 1819. This treaty was to be subject to the approval of Sultan Houssain of Johore. The following day Sir Stamford sailed on his Mission to Acheen, leaving the Colonel in charge of the newly formed Settlement. After a little communication with the Tumonggong, as to Sultan Houssain, it appeared that there was a difference among the Malays as to their Sultan, and that, in consequence of the last Sultan's death having taken place unexpectedly, before suitable arrangements could be made for the succession, the throne at present was irregularly occupied; that Tuanku Abdulrahman was younger brother of Tuanku Houssain, who ought to be Sultan, but was kept out of his rights by the Rajah Moodah Jaffar, who was at enmity with the relatives of his mother, and, finding the weak and complying disposition of Tuanku Abdulrahman suited to his purposes, had patronized the younger prince, in whose name he ruled the country. On enquiring further, Colonel Farquhar was informed that the late Sultan Mahamed, before his death, had arranged that Houssain his eldest son should succeed, and that Abdulrahman, the younger, who had shewn a reserved and timid disposition, should perform the Haj, with a view to the priesthood. Houssain, as Heir presumptive, was sent to Pahang, in order to complete an alliance with the daughter of the Bandahara; his father, the Sultan, accompanied him part of the way, and soon after, on his return to Lingga died, not without suspicion of poison. On his death Jaffir, in order to fulfil one of the requirements of a royal funeral, induced Abdulrahman to allow himself to be installed as Sultan. The north monsoon, at that time in full force, prevented any communication with Houssain at Pahang, and it was not for some months after that he could come down. When he arrived he found the

Rajah Moodah too strong for him, and in consequence he was obliged to succumb.

With this information, which the Colonel transmitted to Sir Stamford, it became a question how far it was advisable to enquire further into the matter as to the superior title of Houssain. As the rights of the English at the new Settlement would entirely depend on the question, Sir Stamford, on his return from Acheen, in June, determined to recognize Houssain. On that Prince being sent for by the Tumonggong, he was installed publicly as Sultan and with the Tumonggong executed a fresh treaty, a copy of which will be found in the Journal of the Indian Archipelago \*. This treaty provides shortly as follows :

*Firstly.* The occupation, by the English, of a tract of land extending from Tanjong Malang, on the west, to Tanjong Katong, on the east, and inland as far as the range of cannon shot from the factory. The jurisdiction within this tract to be subject to the English, excepting the campongs of the Sultan and Tumonggong, and all beyond the line to be subject to the Tumonggong.

*Secondly.* Justice to be administered jointly by the Sultan, Tumonggong, and English resident.

*Thirdly.* Captains and heads of tribes to attend and report occurrences every Monday morning, and to adjudicate in minor matters.

*Fourthly.* An appeal allowed from decision of Captains and heads of tribes.

*Fifthly.* No customs or duties to be levied, or other important matter to be decided, without the consent of the Sultan, Tumonggong and resident.

Such was the primitive constitution under which Singapore was settled, and under which it rapidly rose to importance.

The question, as to whom is due the credit of fixing on the site of Singapore for the great emporium, has been much discussed, and as it is one of some interest, a few remarks may be here permitted.

Sir Stamford's first idea (see his Life by Lady Raffles, page 294), was to have a port in Sunda Straits, and at page 357, writing in April 1818, he says, "to effect the object contemplated some con-

\* Vol. vii. p. 331,



"venient station within the Archipelago is necessary; both Ben-coolen and Prince of Wales Island are too far removed, and "unless I can succeed in obtaining a position in the Straits of Sunda, we have no alternative but to fix it in the most advantageous situation we can find within the Archipelago: this would "be somewhere in the neighbourhood of Bintang". At page 308, in the same letter, he repeats "another station at Rhio or its "vicinity"\*; at page 371, writing from Calcutta, 14th November 1818, he says "I have now to inform you that it is determined to "keep the command of the Straits of Malacca by forming establishments at Acheen and Rhio", and again, writing to Mr Marsden from the Sand Heads,† under date 12th December 1818, he says, "we are now on our way to the eastward, in the hope of doing "something, but I much fear the Dutch have hardly left us an "inch of ground to stand upon. My attention is principally "turned to Johore, and you must not be surprised if my next letter to you is dated from the site of the ancient city of Singapura". Mr Crawford, (see his account of his "Mission to Siam") states that the Carimons was the original object of Sir Stamford. Lady Raffles says the Carimons were only surveyed out of deference to Colonel Farquhar, who had, while at Malacca, fixed on those islands as a fit situation; and finally, it appears clear, both from native and European authority, that they went into Singapore, casually, at Colonel Farquhar's suggestion, to obtain information from his friend the Tumonggong, whom he had known while employed at Malacca. Whatever doubt may arise as to the question whether the exact locality of Singapore was the birth of accident or of preconceived arrangements, there can be no hesitation in stating that its advance was entirely owing to the energy and influence of Sir Stamford Raffles.

The Pinang government, after the failure of their own endeavour to form a subordinate station to the south, were not well pleased that one of their own servants should be permitted to attempt what they had themselves failed in and had declared to be impossible. They had always watched the proceedings of Sir Stamford with

\* Rhio is a small island separated by a narrow strait from the Island of Bintang, or properly "Bentan."

† Mouth of Calcutta River.

disquietude and when the principles on which his new Settlement was to be conducted became known, they felt bound to offer every opposition in their power, as they readily foresaw the decline and ruin of their government in the prosperity of a neighbouring Settlement conducted on such opposite principles. Their protests to Bengal and to the Home authorities had the effect of cooling the support with which Sir Stamford's proceedings had been favoured by both these high authorities; but another, and a more formidable adversary, had to be met, and on a scene where Indian influence had less weight.

The Dutch had seen with indignation and dismay the efforts of the English to encroach on their territories at the South of the Peninsula. In former times they had the exclusive jurisdiction over the whole Peninsula from Perak downwards. On Malacca being restored to them in 1818, they considered that all their former rights and immunities accompanied that restoration, and in consequence that any attempt of the English, or any other European nation, on the Malay Peninsula would be an infringement of their exclusive rights. The proceedings of Sir Stamford Raffles, who had already distinguished himself by opposition to their interests, were looked on as past all endurance and the strongest remonstrances were made to the Indian government as well as to the Foreign Office in England.

Dutch Indian affairs have long been under the Imperial government, and the case now brought before the King's ministers of the improper conduct of the English Company and their servants in the Indian Archipelago, was urged against the feeble efforts of the corporation with all the weight and authority of the Dutch Imperial Ambassador. It is obvious that with the lukewarm, and almost powerless, authority at home and in India, Sir Stamford Raffles and his Settlement, if not otherwise protected, must have been at once offered up as a peace offering to the Dutch, and it is here that credit is due to Sir Stamford in having carried his project to a successful termination. He had early foreseen the battle which must be fought at home, and had provided friends to support his Settlement. The long struggle from 1819 till 1824, when the question was finally settled, was only kept up by the aid of

powerful connexions whom Sir Stamford had secured by his pictures of the incalculable benefits which his Settlement, if properly supported, would confer on British trade. To this influence, supplying to the Foreign Secretary a sufficient motive to resist the Dutch demands, must be attributed the long resistance made to those demands in a question in which the Company's Home and Bengal Governments were indifferent and the Pinang government decidedly hostile.

After remaining a few weeks at Singapore, giving instructions as to laying out the town, and forming provisional arrangements for the government of the new Settlement, Sir Stamford returned to Bencoolen, where he occupied himself, as before, in endeavours to improve the condition of the people, as well as to elevate the tone of society at that residency, till the month of October, when news arrived of the death of Colonel Bannerman, Governor at Pinang. In his last visit to Bengal Sir Stamford had proposed to consolidate the eastern possessions under one governor to reside at Singapore, with Residents at each of the stations of Bencoolen, Pinang &c. The plan was favourably received, under the influence of the almost expiring interest concerning eastern affairs which had guided Lord Minto's policy in that direction. A difficulty however existed in the disposal of the Governor of Pinang, as of course Sir Stamford would himself have been head, under the proposed arrangement. This difficulty now overcome, Sir Stamford proceeded to Bengal again to urge his plan on the notice of the Supreme Government, but by this time, other matters of more pressing interest occupied the government, and in consequence, impediments, one of the chief of which was the difficulty of breaking up the Pinang Government, were allowed to interfere to prevent an arrangement which would most probably have placed British interests in the Archipelago, and the surrounding countries, on a respectable footing, and have obviated the disadvantages now felt in the exclusion of British commerce with three-fourths of the Archipelago which the Dutch have been permitted virtually to monopolize.

Another scheme of Sir Stamford may be here properly introduced. He conceived the design of reducing and colonizing the

whole Island of Sumatra. His plan was to re-establish a central authority (himself), to open up all the navigable rivers into the Straits of Malacca; to hold the West Coast stations as military stations to command the rivers and interior of the country; to open a great central road through the whole length of Sumatra; to assume the position of protector of native states\*; to introduce 20,000 or 30,000 English colonists, and in fact, to make a colony as valuable to English trade as all the West India Islands. This magnificent result was to be accomplished at a cost not exceeding the yearly expenditure at Bencoolen.

Disappointed in his hopes from the vacancy at Pinang Sir Stamford returned to Bencoolen, there to wait the result of the reference made to the Dutch and English Home authorities as to Singapore. While thus waiting his energetic mind found occupation in promoting agriculture at that station. He early saw that Singapore would draw off the little trade his liberal port regulations was collecting at Bencoolen; and as the Settlement must then depend on its internal resources, he endeavoured to increase agricultural production. The land surrounding his own house which he had built in the country, was planted out with a variety of tropical fruits, spices, coffee, &c; the government officers were encouraged to plant spice trees; the convicts were employed in agricultural labour; every one was called on to grow sufficient grain for his own consumption, and finally the system of forced growth of pepper by the natives, under the semblance of a contract, was abolished. This policy had the effect of improving the condition of the people and added materially to the value of the Settlement. The European gentlemen engaged in spice planting set the example of enterprise, perseverance and liberal expenditure of capital, which has always been attended with the happiest results, and the effect of which is the surest proof of the vast benefits which necessarily accompany the European in his residence in these countries. It was an unfortunate circumstance that the result of this official spice planting was not satisfactory to those concerned;—nearly all

\* On a former occasion he recommended Lord Minto to assume the title of "Bitara" in imitation of the former Hindoo Sovereigns of Majapahit on Java. Bitara is a contraction of "Avatara" or "the incarnation."

of them were ruined at the subsequent transfer of the Settlement when their properties were sold at almost nominal prices.

The nature of Sir Stamford's political duties had brought him much in contact with the Dutch. After the foundation of Singapore, his connexion with that Settlement heightened feelings sufficiently warm before, and he could see neither justice nor moderation in the actions of his opponents. The recollection of the Cape of Good Hope—North America—Ceylon—South America—the Spice Islands—the West India Islands—Java—the whole Dutch colonial possessions successively wrested from that unfortunate people, had no effect to soften his exasperated feelings, and he would have confined them to the narrowest bounds in these seas wherever opposed to British supremacy. His fancies on the subject found vent in a "Protest" against Dutch aggression, which protest, with the remarks of the old enemy, the Dutch ambassador at St. James, was brought forward in Parliament when Lord Bathurst, worn out by the constant complaints, felt called on to declare that Sir Stamford Raffles had exceeded his authority, that he was, in fact, a "mere pepper collecting agent of the India Company" and had no power to interfere in such matters. At the India House Sir Stamford fared no better, his measures were totally disapproved; the Directors censured him for emancipating the Company's slaves; for opening the Port of Bencoolen and for abolishing the gambling and cockfighting farms. In a letter from Mr Grant (one of the Directors), dated 19th July 1820, the following ominous passage occurs. "You are probably aware of the obstacles which have been opposed to the adoption of your measures, and even threatened your position in the service; your zeal considerably outstripped your prudence, and the first operations of it became known at an unfavourable juncture".\*

With all the authorities of his own country against him, with the embittered opposition of the Dutch, influentially expressed, as it was, at the foreign office, Sir Stamford, his colony and policy would inevitably have been overwhelmed, had he not succeeded in enlisting a powerful mercantile feeling in his favour. The Indian

\* See Life by Lady Raffles.

trade had just been opened, and the public feeling was still excited as to the immense advantages to be derived to the nation from a participation in that trade, and here was an English colony, settled in the centre of the Indian trade of thirty centuries, and that colony flourishing in a manner without parallel in mercantile history. It is most probably to the mercantile interest excited in favour of Singapore that we are indebted for its preservation. Once established, and ruled under the statesman-like liberality of Sir Stamford's regulations, its progress was rapid, and although thwarted by the insubordination and narrow views of his subordinates, in the management of the infant colony, the principles of his arrangements were so solid that minor difficulties were overcome. It is not necessary to enter into any examination of the differences which occurred between Sir Stamford and the first Resident at Singapore. It is doubtful from the records of his rule whether the Resident ever saw in that station more than a mere village, fitted for the accumulation of a small supply of goods, and the temporary residence of traders. Thus, while Sir Stamford was founding a Settlement, to be second to none in Asia, his subordinate confined his views to present requirements and thought not of the brilliant future of the Settlement.

There can be no doubt that the presence of the Resident, and the influence arising among the natives from his long service at Malacca, induced many natives to come to Singapore to settle and to supply provisions, stores &c, but it may well be doubted whether the irregularities permitted in a weak administration, peculiarly subject to native influence, and governed by native ideas, did not counterbalance such benefits.

On his last visit to Singapore Sir Stamford had the proud satisfaction to find his colony successful beyond his most sanguine expectations. Within four years he found a population of 10,000 souls and a trade aggregating £2,000,000 sterling for the year. He now set about preparing a code of laws, and establishing more suitable Courts of Justice, to be worked under the treaty which he concluded with the native chiefs. He appointed committees to out lay and improve the town ; and effected various other arrangements. Whatever may be said of the want of detailed knowledge

of Sir Stamford in the matter of law making, there can be no doubt that his ideas were far-seeing and liberal. He set the example of intrusting the European residents with a degree of power commensurate with their position in the community, as appears in the following passage of a letter to the Supreme Government, dated 29th March 1823. "I am satisfied that nothing has tended "more to the discomfort and constant jarrings which have hitherto occurred in our remote Settlements, than the policy which has "dictated the exclusion of the European merchants from all share, "much less credit, in the domestic regulation of the Settlement "of which they are frequently its most important members."

During this visit Sir Stamford, finding that course necessary to the well-being of the station, suspended the Resident and took the management of the whole Settlement on himself, till the 4th of June 1823, when Mr Crawford, of the Bengal medical service, and late Ambassador to Siam &c, arrived. Mr Crawford was appointed Resident by the Supreme Government, under which authority the Settlement was in future to be directly placed. Sir Stamford left Singapore on the 6th June 1823, for Bencoolen, to make preparation for his final departure for England. To such a height had the animosity of the Dutch authorities at Java proceeded against him that, in addition to the instance noted in Lady Raffles's "Mémorial" of the Governor-General almost refusing to allow her to land at Batavia, *en route* to Bencoolen, the ordinary official circular, communicating the change of Government at Singapore, which was sent to Batavia, in common with the other neighbouring countries, was returned unanswered.

Sir Stamford's mission was now complete, his health had suffered very much of late, he had lost three of his children, and there appeared to be no further work for him to do in these seas. He therefore set about preparing for his final return to England. He had his immense collections of books, manuscripts, drawings, maps, preserved specimens of natural history &c. packed into boxes, of which there were such numbers as to require a large proportion of the ship's freight for their accommodation. There were here collected the fruit of years of patient labour and enquiry into the literature of the Malays, Javanese, Bugghese &c; and the

finest and most complete collection of books in those languages ever made. The materials from which to have drawn up an account of the Archipelago, more complete in its various details than any yet given, and to have formed the nucleus of a valuable museum were lost in the burning of the ship "Fame," the day after her departure from Bencoolen. Sir Stamford, after seeing the labour of seventeen years thus gone in an hour, set about, after his fortunate escape and return to Bencoolen, to make up duplicate collections. But his health was gone, his early ardour cooled, and in the necessity of a speedy return to Europe he was not able to replace a tythe of the valuable collections thus lost; and in consequence the public have been deprived of a chance of acquiring accurate information on the subjects which attract but a small portion of attention in the present day. Sir Stamford did not live long to enjoy the fruits of his arduous labours, he was cut off at the early age of 45, when his friends still expected a long life of labour in the cause of philanthropy.

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## LEGEND OF THE BURMESE BUDHA, CALLED GAUDAMA.\*

By the Rev. P. BIGANDET.

## CHAPTER 13TH

BUDHA having completed the twofold work of preaching to the crowds and exciting their respect and admiration by the exhibition of the most extraordinary miracles, thought within himself to what place did all former Budhas resort after the display of signs, and spend the season? He saw by a stretch of his incomparable foresight, that all of them had gone to the seat of Thawadeintha in the Nats country, to pronounce the perfect law to his mother. He resolved to go thither too. With one step he reached the summit of the mountain Uganda, at a distance of 160,000 Youdzanas, and another step carried him to the top of the Mienmo mountain. This was done without any effort on the part of Budha. These mountains lowered their summits to the very spot where he was standing and rose up again to resume their former lofty position. Budha found himself brought almost instantaneously to the seat of Thawadeintha<sup>83</sup>. He took his position on the immense rock Pantukambala. Extending himself there upon his Hiwaran, the huge mass on a sudden contracted itself to the very narrow dimensions of his dress.

The people who had seen Budha and who now could not descry him, found themselves in a state of bereavement, as if the sun and the moon had disappeared from the sky: they gave full vent to their cries and lamentations, saying, we are now deprived of the blessed presence of him who is the most excellent among the three sorts of beings, Man, Nats and Brahmas. Some said he went to this place, some to another. Many of the people who had just arrived from distant parts of the country, were exceedingly grieved because they could not see him. They all repaired before Mankalan to ascertain from him what place Budha had gone to. Mankalan knew it, but he wished to leave to Anozooda the honor of satisfying their curiosity. The latter said to them that Budha had gone to the seat of Thawadeintha, to preach the law to his mother,

\* Continued from p. 161.

and spend there one season on the rock Pantukambala. He added that he would be back in three months hence, on the day of the full moon of October. They came to the spontaneous resolution to remain on the very spot, and not to return to their homes until they had seen Budha a second time. They erected temporary sheds, and though the place was small for such a countless multitude they managed peaceably in the best way they could. Previous to his departure Budha had enjoined to Mankalan to remain with the people and preach to them the law. Mankalan faithfully complied with the request and during three consecutive months instructed the people and answered all their questions. The rich man Anatapeing fed abundantly the Rahans and the assembly during the whole time.

Whilst Budha was in the seat of Thawadeintha all the Nats came from more than 10,000 worlds to his presence; but the glory that always encompasses their bodies disappeared or was completely outshone by that of Budha's person. His mother, a daughter of Nats, came from the seat of Toothita to see her son and hear his instructions. She sat on his right. Two sons of Nats stood by the right and left of his mother. The crowd for a time was to keep at a distance of eighteen Youdzanas. Budha asked one of these Nats what he had done to deserve the place he occupied. He answered that in former existences, he had indeed made abundant alms, but his merits had been comparatively small because he had not done these good works to persons eminent by their sanctity. The same question was put to the other Nat, who said that he was, in former existences, living in very narrow circumstances, but that he had had the good fortune of giving alms according to his limited means, to persons who were much advanced in merits. With a voice that was heard by the crowds on the seat of men, Budha proclaimed the immense advantage of giving alms to and supporting the Rahans and those advanced in perfection. They were, said he, like good seed sown on a good field that yields an abundance of good fruits. But alms given to those who are as yet under the tyrannical yoke of passions are like a seed deposited on a bad soil, the passions of the receiver of alms choke as it were the growth of merits. At the conclusion, the two

Nats obtained the reward of Thautapan. The crowds on earth had also the benefit of hearing his instructions.

Whilst Budha was in the middle of the Nats he announced the law of Abidama to his mother. Having to go about to get his food, Budha created a figure of another Budha whom he commissioned to continue the preaching of the Abidama. As to himself he went to the mountain of Himawonta, ate the tender branches of a certain tree, washed his face in the lake Anawadat and ate the food he received from the Northern Island. Thariputra went thither to render him all necessary services. When he had eaten his meal, he called Thariputra and desired him to go and preach the law of Abidama to five hundred Rahans, who were present when the display of wonders took place and were much pleased with it. In the time of Budha Kathaba those five hundred Rahans were Bats living in a cave much resorted to by Rahans, who were wont to repeat the Abidama. These Bats contrived to retain a certain number of words, the meaning whereof they could not understand. When they died they were transferred into one of the seats of Nats; and when they became men, anew, they had the good fortune to be born from illustrious parents in the country of Thawatee, and when Phra showed his powers they were much pleased. They became Rahans under Thariputra, and were the first to understand perfectly the sublime law of Abidama.

As to Budha, he returned to the seat of Thawadeintha and continued the instructions, where the Budha of his creation had left them. At the end of three months preaching, an innumerable number of Nats knew and understood the four great principles. As to his mother, she obtained the perfection of Thautapan.

The time Budha was to return to the seat of men was near at hand. The crowds, eager to know the precise time when Budha was to come back among them, went to Mankalan to ascertain from him the precise day they would be blessed with his presence. Well, said Mankalan to the people, in a very short time I will give you an answer on the subject of your enquiry. On that very instant he plunged into the bottom of the earth and re-appeared but when he was at the foot of the Mienmo mountain. He ascended in the presence of the crowd whom he had left and soon arrived in the

presence of Budha to whom he explained the object of his errand. My son, answered Budha, in what country does your brother Thariputra spend his season? In the country of Thing-ka-tha-nago, replied Mankalan. Well, said Budha, seven days hence, at the full moon of Thading Kroot (October) I will descend in the country of Thing-ka-tha-nago; go and tell the people that those who desire to see me, ought to go to that country, distant 30 Youdzenas from Thawatee. Let no one take any provision, but by a rigorous abstinence let them dispose themselves to hear the law that I will preach. Mankalan having paid his respects to Budha, returned to the place where the assembled multitudes anxiously waited for him. He related to them all the particulars regarding his interview with Budha, and conveyed to them the much wished for intelligence of his speedy return.

On the day of the full moon of October, Budha disposed himself to go down to the seat of men. He called a Prince of Thagias and directed him to prepare every thing for his descent. Complying with this request, the Thagia prepared three ladders or stairs, one made of precious stones, occupying the middle, one on the right made of gold, and a third one made of silver, on the left. The foot of each ladder rested on earth near to the gate of Thing-ka-tha-nago city, and their summits leaned on the top of the Mienmo mountain. The middle ladder was for Budha, the golden one for the Nats and that of silver for the Brahmas. Having reached the summit of the steps, Budha stopped awhile, and resolved to make a fresh display of his power. He looked upwards, and all the superior seats of Brahmas were distinctly descried, on his looking downwards, the eyes could see and plunge into the bottom of the earth, to the lowest hell. The Nats of more than a thousand systems could see each other. Men could perceive Nats in their fortunate seats and Nats saw men in their terrestrial abode. The six glories shot forthwith an incomparable splendor from Budha's person, which became visible to all the crowds. There was not one who did not praise Budha. Having the Nats on his right and the Brahmas on his left, the most glorious Phra began his triumphant coming down. He was preceded by a Nat holding a harp in his hands and playing

the most melodious tunes—another Nat fanned him, a chief of Brahmas held over him a golden umbrella. Surrounded with that brilliant cortege Budha descended near the gates of Thingka-tha-nago and stopped there for a while. Thariputra came forthwith into the presence of Budha, paid him his respects at a becoming distance and said, with a heart overflowing with joy : On this day, O most glorious Budha, all the Nats and men are showing their love to you. Budha replied,—blessed is Thariputra, and blessed are all those who rejoice on my account. Men and Nats love him who is acquainted with the sublime law, who has put an end to his passions and who has attained to the highest state of contemplation. At the end of his discourse, innumerable beings understood the four great principles, and the five hundred Rahans whom Thariputra was commissioned to instruct, reached the state of Arahata. On the spot where all Budhas set their feet when coming from the seat of Tawadeintha, a Dzedi has always been erected.

Budha thus had spent his seventh season in the Nats seats. He passed the eighth in the Phinga-thara-nago country. There he proposed several questions which could not be answered even by the penetrating Thariputra, because they were to be answered by Budha himself. The great disciple had such an extraordinary power of mind, that he could count all the drops of water that are in the Ganges, and all those that had fallen on the earth during the duration of a thousand worlds, but he could not solve the doubts proposed by Budha. He preached the law to all the beings that merited the deliverance. The ninth season was spent in the Thambi country, in the monastery of Gauthitaron. He spent the tenth in the solitude of Palale, where he announced the law to the Elephant Palale which had rendered him all sorts of good offices. Budha passed the 11th season in a Brahmin village named Nala. He went into the country of Werasora, there he passed the 12th season, the 13th on the mount Dzalia, the 14th in the monastery of Dzetawon, and the 15th in the country of Kapilawot, and the 16th in the country of Alawee, and the 17th in Radzagnio, and the 18th and 19th in the city of Isalia, and the 20th in Radzagnio. Nineteen seasons were passed in the country

of Tawatee and six in the monastery of Dzeta won. This book, called History of Budhas, and other writings do not agree as to the places where he spent the 25 remaining seasons. The amount of seasons <sup>84</sup> spent by our Phra since he obtained the Budhaship is forty five.

During all the time, he was travelling about the country, preaching the law to those that were worthy to obtain deliverance. He had reached his 80th year, when he summoned to his presence Ananda who had been constituted his chief agent in all that related to his own person, and through whom all messages were conveyed to the Rahans and said to him,—Ananda, invite all the Rahans to come and meet me, I have special instructions to deliver unto them. According to the order he had received, Ananda assembled all the Rahans and led them to the place that had designed for that purpose. Phra spoke to them as follows: Beloved Bickus as long as you will remain united and continue to hold regular meetings, you will certainly prosper and flourish: as long as you will agree together, and come unitedly to a decision on all principal affairs, so that you will impose no obligation where there is no precept, and that you will fervently observe all the commands, strictly adhering to all the rules of your profession, you will ever be in a prosperous condition. It is required that you should be respectful towards your superiors, yielding due obedience to their injunctions. Beware of passions and particularly of concupiscence, lest you should ever be brought under their tyrannical yoke. Love retreat and solitude, endeavour to observe your regulations, as well as all the ordinances and ceremonies of the law. As long as you observe these important points and adhere to them, you will prosper and be ever respected by all, you will carefully avoid all that which is base and unbecoming your sacred calling.

When the instruction was over, Budha called Ananda and bade him to inform the Rahans to hold themselves ready for going to Ampaladaka.

Whilst staying in a Zeat or Bungalow, Thariputra approached Budha and having paid him his respects, said to him: O most illustrious Budha, there is no one that surpasses or even that is equal

to you in the knowledge of the law. There has never been, nor will ever be, a being that can be compared to you. This is what elicits my admiration towards and love for your person. Budha replied : you are not mistaken, Thariputra—blessed are they who like you know to value the science of a Budha. Desiring to try the wisdom of his great disciple, he added : beloved son, how do you know that no one can be compared to me, and that my knowledge of the law is unrivalled? Thariputra answered : I have not the knowledge of the present, past and future, but I understand the law : through you, O most illustrious Budha, I have come to that understanding ; you have said that you have infinite wisdom, hence I conclude that you know the present, past and future—you are to be ever praised, you are most excellent, ever glorious and free from all passions, and therefore to you I attribute all the qualities attending him who is invested with the Budhaship.

Phra summoned again Ananda to his presence and directed him to tell the Rahans to be ready for a voyage, as he desired to go to the village of Patalee. When he arrived at that place, the people prepared for him the Zeat<sup>85</sup>, that he might remain there with comfort and preach the law. Everything being ready, they invited Phra, who by his silence testified the acceptance of their invitation. Water to drink, to wash the mouth, hands and feet was ready. Budha sat leaning against the central post of the Zeat facing the East. His disciples remained behind in a humble posture, whereas the people sat opposite to him, having their faces turned towards the West. Phra began to explain to the numerous hearers the demerits and punishments attending the trespassing of the precepts of the law, and the advantages reserved to those who religiously observe them. Darakas, said he, whoever trespasses the moral precepts or is remiss in observing them will see his happiness and fortune gradually decreasing, and his good character falling away. He will ever live in a sad state of doubt and uncertainty and at last, when death shall have put an end to his existence, he will fall into hell. But the lot of the faithful observer of the great precepts shall be widely different. He will obtain

riches and pleasures and gain an honorable reputation. He will be welcome in the assemblies of Princes, Pounhas and Rahans, doubts shall never enter his mind, and his death will open before the way to the pleasant seats of Nats. The people were so much taken up with the preaching, that they remained in the Zeat until a very late hour. At last they paid their homage to Budha, rose up, turned on the right and departed.

On the morning Budha went on the bank of the Ganges, preached the law to certain Pounhas who in return made him offerings, and paid him much respect. He stood on that place as if waiting for some boat to cross the mighty stream. Some of the people were looking out for boats, others were busily engaged in preparing rafts. Whilst they were making all the necessary arrangements, Budha stretched both arms and found himself with all his Rahans on the opposite bank. Turning his face in the direction of those who were in search for boats and rafts, he said : he is an Arian, he who has crossed the sea of passions. The practice of the great duties are the boats and rafts whereupon they contrive to cross the sea of passions. He who desires to pass a river wants the aid of rafts and boats which are made up of different pieces of wood joined together, but he who has become an Arian, by the knowledge of the great roads that lead to perfection, weakens all passions and extricates himself from the whirlpool of concupiscence: he can also without the help of boats or rafts cross rivers.

Phra informed Ananda that he intended to go to the village of Kantikama. Having reached that place, he explained to the Rahans the glorious and sublime prerogatives of Ariahs. Thence he passed over to the village of Nadika. It was in that place that Ananda asked him what had become of a certain Rahan named Thamula and of a certain Rahaness named Anaunda, who had both just died. The Rahan, answered Budha, has conquered all his passions and has obtained the state of Niban. As to the Rahaness she has gone to one of the seat of Brahmas: thence she will migrate to Niban, without re-appearing in the world of passions.

Budha went to the country of Wethalce. There lived a famous



courtezan named Apapalika. She had her dwelling in a beautiful place near to an extensive and splendid grove planted with mango trees. She went along with others to hear the preaching of Gaudama, which had the good effect to dispose her to make a great offering to the great preacher and his followers. Budha was submissively requested to come, on the following day, with all the Rahans, to receive his food. The invitation was graciously accepted. The courtezan hastened to prepare the meal for Budha and his followers. On the same day he preached the law to a number of young princes, who had offered to supply him with his meal on the following day. He refused to accept the invitation, because he had already promised to Apapalika to go to her place for the same purpose. The princes were greatly disappointed at the preference given to the courtezan. On the following day Gaudama went to the mango grove attended by all his Rahans. After the meal Apapalika presented the grove to Gaudama who readily accepted the pious gift.

Having remained awhile on this spot Budha went to the village of Weluwoot. There he assembled the Rahans and said to them: I intend to spend a season in this place, but you have my permission to go and remain in the neighbouring districts. The reason that induced him to part for a while with his disciples was the smallness of the place and the difficulty of procuring rice: whilst in the contiguous districts there were many monasteries and an abundance of all the necessaries of life. He would not, however, allow them to withdraw to too great a distance, for two reasons, the first, because he knew that in ten months hence he would attain the state of Niban, and the second, because he desired to see them assembled in his place several times every month, that he might have an opportunity to preach the law to them and deliver his final instructions.

Whilst he was living in that place, Budha was visited with a most painful distemper which threw him into a state of prolonged agony. But owing to the absence of his disciples, and knowing besides that this was not the spot he was to select for his last moments, he overcame with his incomparable power the evil influence of the illness, and entering soon into a state of absolute

trance, he remained therein for a while. Awakening from that position, he appeared anew with his strength and usual vigor. When he came out from the monastery to take his wonted walk, Ananda came to his presence, and expressed to him the profound grief felt by all those who had heard of his illness. When I saw you ill, O illustrious Budha, said the faithful Ananda, I was so deeply affected that I could scarcely hold up my head or draw my breath. I always cherished the hope that you would not go to Niban, ere you had preached once more the law to us all. Ananda, replied Budha, why are the Rahans so much concerned about my person? what I have preached has no reference to what is in me, or without me. Besides me, there is no one else to preach the law. Were they not looking upon me as such, it would be perfectly useless to attempt to preach to them. I am now very old, my years number eighty,—I am like an old cart, the irons, wheels and wood of which are kept together by constant repairing, my earthly frame is kept entire and whole by the force and power of the trance. O Ananda, I feel truly happy whenever I consider the state of Arahat, which is the deliverance from all the miseries of this world and sets a being free and disentangled from all visible and material objects. As to my disciples, as long as my religion shall last, they ought to rely on themselves, and take refuge in the law, for there is no other refuge. They will truly rely on themselves, when by a careful attention, a profound reflexion and wisdom they be bent upon destruction of concupiscent and anger, and meditating upon the constituent elements of this body. Such were the instructions he gave to Ananda.

Having spent a season in the village of Welouwa, the most excellent Budha desired to return by the same way he had previously followed to the country of Thawati. Having arrived there he took up his residence in the monastery of Dzetowan<sup>86</sup>. The great disciple Thariputra having just returned from begging his rice hastened to render to Budha the usual services. He swept the place, spread the mat and washed his feet. These duties being performed, he sat in a cross-legged position, entered into a trance for a while, whence having awakened he thought within himself as follows: has it been the custom in former ages that the Budhas should first arrive to the state of Niban, or their great

disciples precede them in that way? Having ascertained that the latter alternative always happened, Thariputra examined his own existence and found that the period of his life was not to extend beyond seven days. He next considered what place was the fittest for him to depart for Niban: the remembrance of his mother occurred to his mind, and he said to himself: my mother has given birth to seven Rahandas, and she has not as yet taken refuge in the three previous things, Budha, the law, and the assembly of the perfect. Is she capable of understanding and knowing the four ways to perfection? yes, she is indeed. But who is destined to preach to her? I am the person who ought to perform such a good office to her. I will go, teach her and by my instructions make her renounce her false belief and embrace the true one: the very room I was born in, shall be the spot where from I shall depart for the rest of Niban. On this day, I will ask Budha's leave to go to my birth-place. Having come to this resolution, he called the faithful Tsanda, and said to him: go and summon my five hundred Rahans to attend at my place. Tsanda departed forthwith and said to the Rahans; the great Thariputra desires to go to the village of Nolaka; be ready to accompany him: arrange every thing in your own place, take up your Pattas and Hiwarans. The five hundred Rahans immediately complied with the request, and were ready to follow their master. Thariputra having disposed every thing in his own cell, rose up and casting an attentive and serious look upon the place he was wont to sit on during the day, he said: this is the last time I will ever see this place: never will I any more enter into this cell. Thereupon he left the spot, followed by the five hundred Rahans, went in the presence of Gaudama, and humbly requested permission to go and quietly enter into the state of Niban, and thereby be delivered from the whirlpool of endless existences. Gaudama asked him, in what place he intended to obtain Niban, Thariputra replied: in the country of Magada in the village of Nalaka, in the very room where I was born. You alone, O Thariputra, said Budha, know the time of your entering the state of Niban—as it is difficult if not impossible ever to find among all my disciples one like unto you, I desire you to preach once more to the assembly of Rahans. Thariputra knowing that Budha wished him at the same time to show a display of his power, pros-

trated before him, then rose up in the air to the height of one palm tree and come down to worship Budha. He rose successively seven times in the air to the length of a palm tree higher than the preceding one: On the last time he stood in the air for some time and announced the law to the multitude of Rahans and people; then coming down he submissively requested Budha to withdraw into the interior of the monastery. Budha complying with his wishes, entered into a hall studded with diamonds. Thariputra having bowed towards the four points of the compass, said: O most glorious Budha, a hundred thousands of worlds ago, I was prostrated at the feet of Budha Anaumadathi, and earnestly prayed that I might enjoy the happiness of seeing all successive Budhas that would appear during the period of my countless existences. My prayer has been heard, and now I contemplate you, O most glorious Budha, and it is for the last time that I will ever enjoy your presence. Now, O Budha, worthy to be adored by all rational beings, I will soon be freed from the thralldom of existences, and this existence shall be the last; this my prostration before you shall be the last: the end of my life is near at hand: seven days hence, like a man who rids himself of a heavy burthen, I will be freed from the heavy load of my body. He raised his joined hands to his forehead, and from the extremities of the ten fingers rays of glory shot forth. In this position, he bowed to Budha and withdrawing slowly, keeping his face towards Budha, he continued bowing down as long as he could see him, because it was for the last time. When Budha was out of sight, he took his departure. At the same time, the earth trembled with a tremendous shake. Budha said to the Rahans that surrounded Thariputra: beloved children, your elder brother is departing, accompanying him for a while. The people too, hearing that Thariputra was going away, came forward and gathering in large crowds, said to each other: the great Thariputra having obtained leave from Budha, is going to prepare himself for the state of Niban, let us follow him that we may as yet enjoy his presence. Whereupon taking flowers and perfumes in their hands they ran in the direction he had taken, with dishevelled hair, crying aloud, with tears and lamentations: where is Thariputra? Having come up to him, they said: illustrious Rahan you have left Budha:

whom do you now intend to join? Thariputra full of the most affectionate feelings towards the people, mildly desired them not to accompany him further, and he added a few last words enjoining upon them ever to remember Budha and the Rahans. During seven days that his journey lasted Thariputra never ceased to praise and exalt the affection and kindness the people bore unto him.

It was dark when the great Rahan arrived at the entrance of the Nalaka village. He went to rest at the foot of a banyan tree, close to that spot. At that time there came a young man, his nephew, named Ooparewata, who perceiving Thariputra bowed down before him and stood in that place. The great Rahan said to him, is your grandmother at home? Having been answered in the affirmative, he continued, addressing him: go now to her, and tell her to prepare for me the room wherein I was born, and a place for these five hundred Rahans that accompany me. I will stay the whole day in the village, and will go to her house but this evening. The lad went in all haste to his grandmother's house and said to her: my uncle is come and is staying at the entrance of the village. Is he alone, inquired the grandmother, or has he with him a numerous retinue, for what purpose is he coming here? The young man related to her all the particulars of his interview with his uncle. Noopathari, the mother of Thariputra, thought within herself, perhaps my son who has been a Rahan from his youth, desires in his old age to leave his profession. She however gave orders to have the desired room cleaned, and a place prepared for all his attendants.

In the evening, the great disciple went to his mother's with all his followers. He ascended to the room prepared for him, and rested therein. He bade all the Rahans to withdraw and leave him alone. They had scarcely departed when a most violent disease seized Thariputra which caused an abundant vomiting of blood, so great indeed, that the vessel wherein it flowed could not hold it. His mother at the sight of such an awful distemper, did not dare to approach, but with a broken heart, retired into her own room leaning against the door. At that time four great Nats, a Thagia their chief, and four Brahmas came to see him and to minister unto him during his painful illness, but he bade

them to retire. His mother seeing the coming in and going out of so many distinguished visitors, and the respect they paid to her son, drew near to the door of his room and calling the faithful Sangda, inquired from him wherefore so many distinguished individuals had come. Sangda explained to her that the great Nats, the chief Thagia and Brahmas had come to visit and assist her son and enjoy the presence of the great Rahan. Meanwhile he informed the patient that his mother wished to see him. Thariputra replied that the moment was not a proper one, and he asked from his mother the motive of her untimely visit. Beloved son, said she, I am come here to contemplate your ever dear countenance. But who are they those that have just come to see you. Thariputra explained to her how he had been visited by Nats, Thagias and Brahmas. His mother inquiring from him if he were greater than any one of these, he unhesitatingly replied that he was more excellent than any of them. His mother thought within herself, if my son be so exalted how much more must Budha be. Her heart then overflowed with the purest joy.

Thariputra rightly understood that the moment had come to preach the law to his mother. He said to her: Woman, at the time my great teacher was born, when he obtained the supreme intelligence, and preached the most excellent law, a great earthquake was felt throughout ten thousand worlds. No one has ever equalled him in the practice of virtue, in understanding, wisdom and in the knowledge of, and the affection for, the transcendent excellencies of the state of Arahāt. He then went on explaining to her the law and many particulars relating to the person of Budha. Beloved son, said his mother, delighted with all that she heard, why have you been so late in acquainting me with such a perfect law? At the conclusion of the instruction, she attained the taste of Tautapan. Thariputra replied: Now, woman, I have repaid you for all the labors you have bestowed on me in bearing, nursing and educating me, now depart from me and leave me alone.

Thariputra inquired from the devoted Sangda whether the moment had come. Having been informed that it was day light, he requested to be set up. By his order all the Rahans were call-

ed to his presence, and he said to them :—during the last forty four years, you have ever been with me, should I have offended any one during all that time, I beg to be pardoned. The Rahans answered him :—great teacher, we have lived with you during the last forty four years, and have been your inseparable attendants, following you everywhere, as the shadow follows the body. We have never experienced the least dissatisfaction, but we have to request your forbearance and pardon for ourselves.

It was on the evening of the full moon of the month Tatsaongmon (November) that Thariputra went to his mother's place, and laid in the room wherein he had been born. During the night he was attacked with the most distressing distemper. In the morning at daylight, he was habited with his Hiwaran and made to lay on his right side. He entered into a sort of ecstasy, passed successively from the first state of Dzan to the second, third and fourth, and thence dived into the bottomless state of Niban which is the complete exemption from the influence of passions and matter.

Noopathari bathed in her tears, gave full vent to her grief and desolation: alas! exclaimed she, looking on the lifeless body, is this my beloved son? His mouth can no more utter a sound. Rising up, she flung herself at his feet and with a voice ever interrupted by sobs and lamentations, she said: alas, beloved son, it is too late that I have known the treasure of perfections and excellencies that was in you. Had I been aware of it, I would have invited to my house more than ten thousand Rahans, fed them and made a present of three suits of dress to each of them. I would have built a hundred monasteries to receive them. The day<sup>88</sup> having dawned, she sent for the most skilful goldsmiths, opened her chests and gave them a great quantity of gold. By her command, five hundred piathats and as many Dzedis were erected: the outward sides were all covered with gold leaves. The great Thagia sent down on the spot a number of Nats who erected also the same number of religious monuments. In the middle of the city, a high square tower was erected, from its centre a tall spire rose to an immense height. This principal one was surrounded by a great number of smaller ones. Men and Nats mingled together uniting in their endeavours to do honor to

the deceased. The whole country was lined with countless beings vieing with each other in efforts to show the utmost respect, joy and exaltation on this extraordinary occasion.

The nurse of Thariputra named Rewati came and deposited round the mortal remains three golden flowers. At that very moment, the great Thagia made his appearance surrounded with numberless myriads of Nats. As soon as the multitude perceived him, they withdrew hastily to make room for him. In the midst of the confusion, Rewati fell down, was trampled upon and died. She migrated to the fortunate seat of Tawateinthä, became a daughter of Nats, and inhabited a place (niche) made with the most consummate skill, and adorned with the richest materials. Her body shone like a beautiful statue of gold, and was three gawoots tall. Her dress exceeded in richness, variety and beauty all that had ever been hitherto seen.

On the following day Rewati came from her glorious seat, to the spot where crowds of people surrounded the body of the deceased. She approached with the dignified countenance and majestic bearing of a Queen of Nats. No one recognised her, though the eyes of all were riveted on her person, encompassed with the splendor of Nats. Whilst all the spectators, overawed by the presence of that celestial being, remained motionless with a silent admiration, Rewati said to them, how is it that none of you recognise me. I am Rewati the nurse of the great Thariputra. To the offering of the three golden flowers made by me and placed at the feet of the mortal remains of the great Rahan, I am indebted for the glory and splendor of my present position. She explained at great length the advantages procured by doing meritorious actions. Having stood for a while above the cenotaph whereupon they had deposited the body of the deceased, she turned three times round it, bowing down each time and then returned to the blissful seat of Tawatienthä.

During seven consecutive days, rejoicings, dancings and amusements of every description were uninterruptedly kept up, in honor of the illustrious deceased. The funeral pile was made of scented wood, upon it they scattered profusely perfumes the most rare and fragrant. The pile was ninety-nine cubits high.



The corpse having been placed upon it, fire was set to it by means of strings made of flowers and combustibles. During the whole night that the ceremony lasted, there was a constant preaching of the law. Anoorooda extinguished the fire with perfumed water. Tsonda carefully and piously collected the remaining relics, which were placed in a filter. Now, said he, I will go to Budha with these relics and lay them in his presence. With his companion Anoorooda, he took, together with the relics, the Patta and Hiwaran of the deceased and returned to Budha, to relate to him all the particulars concerning the last moments of his great disciple.

Tsonda was the younger brother of Thariputra. It was to him that belonged the honor of being the person selected to convey to Budha the precious relics. When, however, he had come to the monastery, he was unwilling to go alone into Budha's presence. He went first to Ananda, his intimate friend, and said to him : My brother Thariputra has obtained the state of Niban. Here are the Patta, Hiwaran and relics ;—exhibiting before him, one after the other, these precious articles. Both went together to Budha's place, and laid at his feet the Patta, Hiwaran and relics of the great disciple. Budha placing the relics on the palm of his right hand, called all the Rahans and said to them :—beloved Rahans this is all that remains of one who, a few days ago, was performing wonders in your presence, and has now reached the state of Niban, something resembling a pure white shell. During an atthingii and hundred thousands of worlds, he has perfected himself by the practice of virtue. Beloved children, he could preach the law like another Budha. He knew how to gain friends : crowds of people followed him to hear his instructions. Excepting me no one in 10,000 worlds was equal to him. His wisdom was at once great and cheerful ; his mind quick and penetrating. He knew how to restrain his desires, and to be easily satisfied with little. He loved retirement. He severely rebuke evil doers. Beloved children, Thariputra renounced all pleasures and gratifications to become a Rahan, he always shunned strifes and contentions, as well as long and idle conversations. His patient zeal for the diffusion of my religion equalled the thickness of the globe. He was like a bull, the horns of which have been broken. My beloved Rahans, look

once more at the relics of my wise son Thariputra. Budha in this manner eulogized the virtues of the illustrious deceased in five hundred stanzas.

On hearing all that Budha had said to honor the memory of Thariputra, Ananda was filled with sentiments of the tenderest emotion. He could not refrain from shedding abundant tears. Budha quickly remarked all that was taking place in his faithful and loving attendant, and said to him : Ananda, on former occasions I have in my preachings endeavoured to shelter your soul from the impressions caused by such and like emotions. Two things can alone keep us separated from father, mother, brothers, sisters &c, in a word from all that we most cherish, death and distance. I, though a Budha, have been exposed to all these changes, brought on by distance, when I practised the great virtues in the solitude, when I displayed wonders and spent a season in the seat of Tawantientha. In those circumstances, distance kept me far from all that is dearest to me. Would it not have been considered as useless, if not unbecoming, on my part to shed tears, or in others, to do it on my account, can there ever be a time when it is allowed to cry ? With these and other considerations, Budha soothed the affliction of Ananda, and filled it with consolations.

Budha to complete as it were the work of praises in favor of his great disciple caused a Dzedi to be erected in his honor. Having satisfied the sacred duty of gratitude towards the greatest of his disciples, Gaudama resolved to leave the monastery of Dzetawon for the country of Radzagnio. Ananda was, as usual, directed to inform the Rahans to hold themselves ready for immediate departure.

Whilst they were on their way, on the last day of the month of Tatseongmon, another great disciple, Mankalan, entered the state of Niban. In that place too where the news of Mankalan's death was heard, a Dzedi was erected to his memory by Budha. All the particulars regarding the last moments of Mankalan may be read in the book of Damma Ataga.

From Radzagnio, Budha went to Wethalee with all his disciples. In following one bank of the Ganges he reached the place called Ookatsela. Early in the morning, rising up, he put on his dress and went out to beg his food. Having returned from his errand

of mendicant, he called Ananda and commanded him to bring some of his utensils, intimating to him that he would go and spend a day in a place called Hapala. Complying with the command, Ananda following Budha went to the beautiful site of Hapala, to the place prepared for Budha. Ananda approached Phra, and, respectfully prostrated, said to him: this is indeed a very agreeable place. Whereupon Budha rejoicing, praised the different sites of that country which he had visited, as well as the Dzedis that adorned them, and added: Ananda, every wise person ought to be very earnest in perfecting himself in the four laws of Edeipat. Having advanced in the practices of these laws, he can if he choose to do so, remain in a state of fixity during a revolution of nature and even more. I, Budha, have become perfect in those laws, and I may remain as I am now during an innumerable number of years. Three times, the same words were repeated. But Ananda entangled as yet by some passion, remained prostrated before Budha. It never came to his mind to entreat him to remain longer on earth for the benefit of mortals who would derive the greatest advantages from his presence.

At that time Ananda was called by Budha and reminded that the moment for departure had come. He rose up, bowed before Budha and went to the foot of a tree at a small distance. He had scarcely left Budha alone, when the Nat Manh perceiving that Budha remained alone for a while, approached near his person, and keeping at a respectful distance said to him: Great, illustrious and glorious Phra who preach an excellent law, it is now time for you to enter into the state of Niban. You said in former times that as long as your disciples should not be much advanced in knowledge, as long as they would not have obtained a thorough command over their heart, mouth and senses, that they would be as yet wanting in firmness and diligence for hearing and understanding the law, or that they would be unequal to the task of preaching the law, you would not as yet go to Niban. Now the Rahans, members of the assembly and your disciples, both males and females, are thoroughly instructed in all the parts of the law: they are firm in controlling their passions: they can preach the

law to other mortals: the Nats and Brahmas have heard your preachings and a countless number among them have obtained the deliverance: the time, therefore, is come for you to enter into the state of Niban. Budha knowing the wicked one with his evil dispositions, replied: Ha! wretched Manh, do not concern yourself about me, ere long I will go to Niban.

Whilst he was near the dzedi of Hapala, Budha in a moment of perfect calmness of mind, entered into a sort of ecstasy. At that very instant the earth trembled with such violence that it caused the hairs of one's head to rise up. Then he said to all present: I am delivered from the influence of the world of matter, of the world of passions and every influence that causes the migration from one existence to another. I enjoy now a perfect calm of mind,—like a mighty warrior who, on the field of battle, has conquered all his enemies, I have triumphed over all passions. These words were uttered by Phra, lest perhaps some people might infer that he entered into ecstasy, from fear caused by the language of the tempter, inviting him to get forthwith to Niban.

Ananda having felt the earthquake, respectfully approached Budha and prostrated before him; withdrawing then to a becoming distance he asked him the causes that produced the extraordinary and terrifying phenomenon of earthquakes. My son, answered Budha, eight cases make the earth tremble. 1st, the earth lays on a mass of water which rests on the air, and the air on the space—when the air is set in motion, it shakes the water, which in its turn shakes the earth. 2nd, any being gifted with extraordinary powers; 3rd, the conception of Phralaong for his last existence; 4th, his birth; 5th, his becoming Budha; 6th, his preaching the law; 7th, his entering into ecstasy; 8th, his obtaining the state of Niban. These are the eight causes of earthquakes. Ananda, a little while after having become a Budha, I was in the solitude of Ooroowela, on the banks of the river Neritzara, under the shade of a banyan tree, planted by some shepherds. The wicked Nat came into my presence and requested me to go forthwith to Niban. I refused then to comply with his demand said to him: wretched Manh, my disciples, members of the assembly, either males or females; the believers, either men or

women, have not yet acquired sufficient knowledge, prudence and penetration, courage and resolution. They have not been as yet properly instructed in the most essential and highest articles of the law; they are unable to teach others: my religion is not yet resting on a strong foundation. The time therefore is not yet come for me to enter into the state of Niban. Now in this very Dzedi of Hapala, he has come anew and told me the same thing. Do not trouble yourself, miserable wretch, have I said to him, three months hence I will obtain the state of Niban. On this occasion I have fallen into a state of ecstasy.

Ananda said to Phra: illustrious Budha, please to remain during a whole Kalpa in this world, for the benefit of men, Nats and Brahmas. Ananda, replied Phra, your present request is too late and cannot be granted. Three times the faithful disciple begged his great teacher this favor and three times he received the same refusal. Do you believe, O Ananda, that I know the four ways that lead to science and wisdom, or that I am perfect in the four laws of Edeipat. I do believe it, answered Ananda. Do you recollect, O Ananda, that on a certain occasion I said to you three times, that he who was perfect in the laws of Edeipat, could remain, if he choose, during an entire Kalpa in this world. I added that I was thoroughly acquainted with these four laws: but you remained silent, and made no demand to me to remain longer in this world. The time for making this request is now irrevocably past. The term of my life is for ever fixedly determined. Now Ananda let us go to Mahawon Kootagara. Having reached the place he desired his faithful attendant to go to Wethalee and assemble all the Rahans in the Dzeat. When they had all assembled in that place, Ananda informed Budha that his order had been duly executed. Phra went to the Dzeat, and sat in the place prepared for him; he then, addressing the assembly said: my beloved children, the law which my supreme wisdom had discovered, I have announced to you for your benefit and advantage. You have attentively and perseveringly listened to it, firmly adhered to its tenets and zealously propagated them. Now my religion shall last for a long period, and will prove the source of great blessings to all Nats. But to the end that my religion may last long, shine

forth with splendor and be productive of incalculable benefits, it is necessary that great attention should be paid to the thirty seven laws from which all good works proceed. These laws you have been acquainted with by my preachings: it is to you to announce them to all beings. Meditate with unremitting attention on the principles of changes and mutability. As to me, ere long I will go to Niban; three months more and this last drama shall be over.

In the morning Budha putting on his dress went out to beg his food, carrying the Patta on his left arm. When he had eaten his meal, he looked with the steadiness of an elephant, over the whole country. The reason why he cast a look like an elephant over Wethalee is, as he explained to Ananda, the following. The bones of all Budhas are kept together, like the links of a chain: hence when they wish to consider some object lying behind, they cannot turn their heads backwards, but the whole body, like that of the elephant, must follow the same motion. On this and other occasions of this kind, our Budha had not to make any effort, but the earth turning round like the wheel of the potter, brought the object to be looked at before him. The country Wethalee within three years was to be destroyed, but the inhabitants having built a fine Dzeat and made before it offerings of flowers and perfumes, the country was to be saved from the approaching calamity. This is the motive that induced Budha to cast a look over it.

Budha went to a place called Pantoogama, thence to Banganagara, where he preached the four laws of Padela. Summoning Ananda to his presence he desired him to inform the Rahans to hold themselves ready to go to the Pawa country. Having reached that country, he went with all his Rahans to live in a monastery built in a grove of mango trees erected by Tsanda the son of a wealthy goldmith. Tsanda had previously seen Budha and obtained the state of Tautapan. His gratitude induced him to build a monastery, which together with the grove he had given over to Budha.

Informed that Phra had come to the monastery, Tsanda repaired hastily thither, prostrated before him and having taken a seat at a becoming distance, he requested Budha to accept the meal he would prepare for him and all the Rahans. Budha by his silence

acquiesced in the request and Tsanda rose up, bowed down and turning on the right, left the monastery. During the whole night all sorts of the choicest dishes were prepared. He had a young pig, neither fat nor lean, killed, and the flesh dressed with rice in the most excellent manner. The Nats infused into it the most delicious flavor. At daybreak every thing being ready, Tsanda went to the monastery and invited Budha and all the Rahans to come and partake of the meal that was ready for them. Budha rose up and carrying his Patta, went to Tsanda's house where he sat in the place prepared for his reception. He took for himself the pork and rice, but his attendants feasted upon the other dishes. When he had eaten, he desired Tsanda to bury in the earth the remains of the pork and rice, because no one but himself in the Nats or Brahmas seats could digest such food. A little while after, Budha was seized with a violent attack of dysentery: the pain whereof he bore with the greatest patience and composure. He suffered so much, not because of the food he had taken, as he would otherwise have been exposed to the same distemper. The pain was rather alleviated by the eating of the pork and rice, as the Nats had infused therein the choicest flavor.

Budha desired Ananda to be ready to go to the place of Kootheinnaron. While on the way, he felt very weak and retired under the shade of a tree, commanding Ananda to fold his Dugout to sit upon. When he had rested a little, he called Ananda and said to him. Ananda I am very thirsty, bring me some water. Ananda replied: The Prince Malla named Pookkatha has just passed through the river with five hundred carts and the water is quite muddy. But notwithstanding this objection Budha repeated three times the injunction. Ananda at last took up Phra's Patta and went to the stream to fetch water. How great was his surprise, when he found the water clear and limpid. He said to himself, great indeed is the power of Budha who has worked such a wonderful change in this stream. He filled the Patta with water and brought it to his great teacher, who drank of it.

Prince Pookkatha had been a disciple of the Rathee Alara. He came to Budha and said to him whilst under the shade of the tree: great indeed is the peace and calm composure of mind of the

Rahans. On some former occasion, added he, the Rathee Alara was travelling and went to rest under the shade of a tree, at a small distance by the way side. A merchant with five hundred carts happened to pass by. A man that followed at a distance came to the place where Alara was resting, and inquired from him if he had seen the five hundred carts. Alara replied that he was not aware that any cart had come in sight. The man at first suspected that Alara was unsound in his mind, but he was soon convinced that what he was at first inclined to attribute to mental derangement, was caused by the sublime abstraction of the Rathee from all that was taking place. Budha having heard this story rejoined: what is more wonderful, to see a man in his senses and awake not to notice the passing of five hundred carts or even one thousand, or another man equally awake and in the enjoyment of his mental faculties not hearing the violence of a storm, a heavy fall of rain accompanied with loud peals of thunder and uninterrupted flashes of lightning? In former times, I, Budha was sitting under a small shed, a most violent storm came on, peals of thunder resounded more awfully than the roaring of the sea, and lightning seemed to rend the atmosphere in every direction. At that time two brothers were ploughing a field with four bullocks. They were all killed, men and bullocks, by lightning. A man came to me whilst I was walking in front of the shed, and told me that he came to see the accident that had just happened, and asked me some particulars concerning it. I answered him that I was not aware that any storm had raged near this place, nor any accident attended it. The stranger inquired from me whether I was asleep, or if not whether I was in possession of my senses. I answered him that I was not asleep, and that I was in the perfect enjoyment of my mental and physical faculties. My answer made a powerful impression upon him: he thought within himself that great and wonderful is the power of Thamabat, which procures to the Rahans such an undisturbable calm of mind, which cannot be overturned by the mightiest convulsions of nature. Now, Prince Pookkatha, in whom do you think that the greatest calm of mind has prevailed? Most excellent Phra, replied the prince, the great



respect I bore formerly unto the Rathee Alara has disappeared like the chaff before the wind, and like the water of a rapid stream. I am now like a man to whom the true road has been pointed out, who has discovered hidden things, who has a shining light before him. You have announced to me the true law which has dispelled the cloud of ignorance, and brought happiness and calm to my hitherto disturbed soul. From this moment I believe in Budha, the law and the assembly, and to the end of my life I will ever remain a believer. The prince called a young man and directed him to go and bring two beautiful and rich pieces of cloth having the color of pure gold thread. When they had been brought over, the prince holding them into his hands said: O most glorious Budha, these pieces of cloth I have occasionally worn, they are in color like gold, and the tissue is of the finest description, please to accept them as an offering I make to you. Phra desired him to present one of these pieces to himself and the other to Ananda, that his merits might be greater, since the offering would be made to Budha and to the assembly in the person of Ananda. This attention in favor of Ananda was also intended to reward Ananda for his unremitting exertions during twenty five years he had served Budha with the utmost respect, care and affection, without having received any return for his services. Budha preached afterwards the law to the prince. When the instruction was over, Pookkatha rose up, prostrated before Budha, turned on the right and departed.

Ananda after the prince's departure brought the two dresses to the great Phra, who put on one whilst the other was girded round his waist. His body appeared shining like a flame. Ananda was exceedingly surprised. Nothing of this kind had as yet happened. Your exterior appearance, said he to Budha, is at once white and beautiful above all expression. What you say, O Ananda, is perfectly true. There are two occasions when my body becomes extraordinarily beautiful and shining: the first, on the night I obtained the supreme intelligence; and the second I am a enter into the state of Niban. Doubtless, O Ananda, on the morning after this very night in a corner of Kootheinnaron country,

that belongs to the Prince Malla, in the forest of Engien trees, I will go to Niban. The shining light emanating from my body is the certain forerunner of this great event.

#### NOTES.

83. The preachings of Budha were not to be confined to the narrow limits of man's abode, they were designed to reach much further. All beings living in the six seats of Nats were to share with men the blessings of the publication of the perfect law. It has been already stated at length in a foregoing note that the condition of Nats was merely a state of pleasure and enjoyments, allotted to those who in a former existence had done some meritorious work. The fortunate inhabitants of these celestial regions remained in those seats until the sum of their respective merits being, as it were, exhausted, they returned in the abode of man, the true place of probation for all beings living therein. The condition of Nat, therefore, was not a permanent one, the Nat after his time of reward was over, had to migrate to our terrestrial abode, begin anew existence and endeavour to advance himself in the way of perfection, by the practice of virtue. He is as yet very far from the state of Niban. Like man, he has to learn the sublime law, and to become acquainted with the four high perfections. Budha who came to announce the law of salvation to all beings, could not but go to the seats of Nats and teach the way to free themselves from the turmoil of never ending existences. The preachings of Budha during three consecutive months, were attended with a success that must have exceeded his most sanguine expectations. Millions of Nats were converted and forthwith obtained the deliverance. Others, less advanced in merits, obtained the first, or second or third state of perfection.

During his stay in the other seats of Nats, Budha gave a decision on the merits of alms-giving which is certainly to the advantage of the yellow dressed Bikkus, but appears somewhat opposed to all principles of justice and reason. In his opinion the inward dispositions of him who gives alms, has nothing to do with the merits resulting from such a good work. Those merits are strictly proportionate to the degree of sanctity or perfection of him who receives alms. Such doctrine—destructive of the purest and noblest motives that can actuate man to do good, is openly upheld now both in theory and practice by the Buddhist Monks. When they receive alms from the admirers of their saintly mode of life, they never think of returning thanks to those who so liberally administer to all their material wants—they content themselves with saying: Thadoo, thadoo, that is to say—well, well, and the pious offerer withdraws perfectly satisfied and happy, relying on the merits he has gained on this occasion, and longing for another opportunity of doing the like. The liberality of the laity towards the religious is carried to an excess scarcely to be credited. Governments do not interfere in the maintenance of the perfect; and yet they are abundantly supplied with all the necessities, nay the luxuries of life. They live on the fat of the land.

84. This short summary of Budha's life, indicating the places where he had spent 20 seasons, leaving us in the dark as to all particulars regarding the 25 other seasons, is another illustration of the assertion made in some foregoing passages, that the present compilation is very concise and imperfect, supplying us with but an outline of Budha's proceedings during the course of his preachings. He reached the age of eighty. According to the authority of his legend, Budha lived forty five years after he had obtained the Buddhship. He was therefore aged thirty five years, when he began his public life and entered the career of preaching the law. It is not in my power to say something positive respecting the antiquity of the compilation of this work, but the statement of the main facts is borne out by the united testimony of the Buddhistic works existing in various parts and in different languages of Eastern Asia. If it be true that our Budha lived so long we must believe that his time during the last twenty five years was employed in the same benevolent undertaking, viz :—to preach the sacred law and point out to beings the way that may lead them to the deliverance. Many volumes are full of the disputes on religious subjects between Budha and the heretics, that is to say, his opponents. We may conclude that those controversies took

place during the latter part of Budha's life, as it cannot be doubted that they increased in proportion to the progress the new doctrines made among the people. If, however, we are in great part kept in the dark respecting the doings of the great Reformer during the longest period of his public life, we are amply compensated by the account of many interesting circumstances that occurred during the last year of his earthly career.

The first particular related at length by the compiler of this work, is one of peculiar interest. Budha summons the Rahans to his presence through the ever faithful and dutiful Ananda, and addresses to them instructions which form the basis of the duties and obligations of all true disciples. He styles them Bickus, that is to say mendicants, to remind them of the spirit of poverty and of the contempt of worldly things which must ever be dear to them. The epithet beloved, is always prefixed to the word Bickus, as conveying an idea of the true and pure affection the master bore to his disciples, or rather his spiritual children. Budha charges them at first to be always diligent in holding assemblies where religious subjects should be discussed, controversies settled and unity of faith secured. This obligation has long been held as a binding one by the primitive Buddhists, as mention is always made in their books of the three great assemblies held during the three first centuries of the Buddhistic era, when the sacred writings were carefully revised, amended and as it were purged of all spurious doctrines. It was during the last council that the canon of scriptures was adopted and has ever since been maintained by Orthodox Buddhists. Nothing can be more wise than the desire he so strongly expresses that no one should ever presume to alter the true and genuine nature of the precepts, by making, according to his whim, light what is heavy; or obligatory what is but a matter of counsel. He expresses the strongest wish to see them always united among themselves and fervent in the observance of all the precepts of the law. He establishes as a fundamental principle, the obedience to superiors. There is no society of a religious character among heathens, where the various steps of the Hierarchy are so well marked and defined as in the Buddhistic Institution. The whole body of religious has a general superior in each province, there is a superior having a thorough control over all the houses within the limits of the province: he may be looked upon as a regular Diocesan. In each house of the order there is a superior having power and jurisdiction over all the inmates of the place. Under him we find the professed members of the society, then those who may be called Novices and last of all the Postulants and disciples allowed to wear the clerical dress, or yellow garb, without any power or authority, and being looked upon merely as in the way of probation and preparation. In his charge to his disciples, Budha lays much stress upon the necessity of destroying in themselves the principles of passions and in particular concupiscence. The general tendency of all his preachings is to teach men the means of freeing themselves from the tyrannical yoke of passions. No one indeed can obtain the state of perfect quiescence or Niban unless he has annihilated in himself all passions and thereby qualified himself for the practice of all virtues. The character of the great body of ascetic Buddhists is clearly set forth in the exhortations their great master directs to them, to love retreat and solitude. The noise, tumult and bustle necessarily attending the position of a man living in the world, are entirely opposed to the acquirement of self knowledge, self possession and self control, so much required in a Religious. As long, concludes Budha, as you will remain faithful to your regulations, you shall prosper, and secure to yourselves and your order, the respect and admiration of all. He winds up his speech by exhorting them to act in a manner ever becoming their sacred calling. The greatest moralist, possessing the most consummate and perfect knowledge of human nature, could not lay down wiser regulations for setting on a firm and lasting foundation a great and mighty institution, destined to spread itself far and wide amidst nations and tribes and subsist during an unlimited period.

85. A Dzeat is a building erected by the piety of Buddhists for the purpose of affording shelter and a place of rest to travellers and strangers. These buildings are to be found at the entrance of towns, in villages, and often in the neighbourhood of Pagodas. Those of Burmah are erected in the plainest manner. A verandah in front extends to the full length of the building, a spacious hall running parallel to the verandah occupies the remaining place. There is no partition between the hall and the verandah. It happens sometimes that a space at one of

the hall's corners, screened by mats or dry leaves, offers an asylum to him who does not like to mix with the *vulgus*. The carelessness of government in all that relates to the comfort of the people, is amply supplied by the zeal of pious laymen who readily undertake the erection of those works of public utility in the hope of securing to themselves the attainment of merits to be enjoyed perhaps in this but certainly in some future existences.

On this occasion Budha preached to the crowd. We see a line of distinction well drawn between the assembly of the disciples of Budha and those we may merely style hearers. They are addressed by the name of Darakas, meaning a layman that hears the preaching. A Daraka is yet a convert and therefore not a member of the assembly of the perfect. He has already some faith in Budha; he is under instructions but he cannot be called a professed disciple. The rewards of faith are both of a natural and supernatural order. Riches, happiness, an honorable reputation are promised to the faithful observer of the law. He is to be ever free from doubts, since faith makes him adhere firmly to all the instructions of Budha; and after his death, he shall migrate to some of the seats of Nats. The trespassing of the law is to be attended with poverty, shame and misery, doubts in an unsettled mind, and last punishment in hell. This place of suffering is minutely described in Buddhistic works. Such a description appears, in the opinion of the writer, of no importance to those who desire to understand not the superficial portion of the Buddhism, but its fundamental and constitutive parts. Hell is a place of punishment and torment as the Nats seats are places of reward and happiness. There is no eternity of sufferings: the unfortunate inhabitant of those dark regions is doomed to remain here until the sum of his offences has been fully atoned for by sufferings. When the evil influence created by sin is exhausted, punishment ceases too, and the wretched sufferer is allowed to migrate to the seat of man, in order to acquire merits and prepare himself for happier future existences.

In recording the account of the conversion of a courtesan named Apapalika, her liberality and gifts to Budha and his disciples, one is almost reminded of the conversion of a woman that was a sinner, mentioned in the Gospel.

86. The duties performed by Thariputra on this occasion, exhibit more fully than language can express, the profound veneration he entertained for Budha. He was with Mankalan the most distinguished member of the assembly; he occupied the first rank among the disciples; in point of intellectual and spiritual attainments and transcendent qualifications he stood second to none but to Budha. Notwithstanding his exalted position, he did not hesitate to render to his superior the lowest services. The high opinion he had of Budha's super-eminent excellencies prompted him to overlook his own merit, and to admire without reserve that matchless pattern of wisdom and knowledge. Hence the inward satisfaction he sweetly enjoyed, in serving as an humble disciple, him whose unutterable perfections cast in the shade, in his opinion, his far famed and much praised acquirements. The unaffected humility of the disciple does the greatest credit to the sterling worth of his inward dispositions, and conveys the highest idea of the respect and veneration entertained for the master's person.

In the houses where Buddhist Monks are living, it's a fixed rule that the superior and elders of the institution should be attended in the minutest services, by the youngest members wearing the professional dress. The framer of the disciplinary regulations, intending on the one hand to confer dignity on the assembly, and on the other to oppose a strong barrier to covetousness and to all inordinate worldly affections, wisely laid down a stringent order to all the members of the society, never to touch or make use of any article of food, dress, &c, unless it had previously been presented to them by some attendant—layman or clerical. Hence when water is needed for washing the head, hands and feet or for rinsing the mouth, when meals are served up, when offerings are made, a young postulant holding a vessel of water on the board whereupon are placed the dishes, or the article intended to be offered, respectfully approaches the elder, kneels before him, squatting on his heels, lays before him the object to be presented, bows down with the joined hands raised to the forehead, resumes then the article with his two hands, presents it, the upper part of the body bent in token of respect. Before accepting it, the elder asks is it lawful? The answer, it is lawful, having been duly returned, the article is either

taken from the hands of the offerer, or he is directed to place it within the reach of the elder. Any infraction of this ceremonial, is considered as a sin. In the presence of the people, the Monks never fail to submit to that somewhat annoying etiquette: their countenance on such occasions assumes a dignified and grave appearance that has always much amused the writer, whenever he had the opportunity of witnessing this ceremony which is called Akat. There is no doubt but this custom is a very ancient one. We find it blended, to a certain extent, with the manners of the nations inhabiting Eastern Asia. It is minutely described in the Wini, and carefully observed by the inmates of the Buddhistic monasteries. It agrees remarkably well with the spirit that has originated, promulgated and sanctioned the disciplinary regulations. He who in this instance would look at the mere skeleton of the rule, without any reference to the object aimed at by the legislator, would show himself in the light of a very superficial observer. This unfortunately is too often the case, when we scorn and laugh at customs, the demerit of which consists simply in not being similar to ours: whereas the commonest sense tells us that we ought to judge them in connection with the institutions they have sprung from, and the end aimed at by him who has established them.

The narrative of Thariputra's departure for his birth place and his last moments suggests to the mind several reflections. He is certain of the last day of his existence, he foresees with a prophetic glance, that his mother is well prepared for hearing profitably the preaching of the most perfect law: by the incomparable powers of his memory, he relates to Budha that a 100,000 revolutions of nature ago, he was possessed with the strong desire of seeing him and hearing his instructions, &c, &c. How can these particulars be accounted for, according to Buddhistic notions? The spring all evils or demerits flow from is ignorance. A being is imperfect in proportion to his being sunk deeper in the dark bosom of ignorance. On the contrary, a being perfects himself in proportion to the efforts he makes for dispelling the thick cloud of ignorance that encompasses his mind. The more a man grows in the knowledge of truth, the farther he removes the horizon of darkness. He who has made the greatest and most persevering efforts in fervent prosecuting the work of searching truth, by studying the law that teaches the way of reaching it, contemplates and enjoys a portion of truth, commensurate to his efforts and success. A Budha who has reached the last boundaries of knowledge has therefore triumphed over ignorance and indefinitely enlarged the sphere of truth. He possesses in fact a cloudless sight of all that exists, his science is unlimited, extending over all the countless series of worlds that, in the opinion of the Buddhist, are supposed to form a system of nature. Thariputra though much advanced in perfection had not as yet reached its acme. His knowledge, however, was wonderfully great and extensive—it enabled him to obtain a clear insight into the darkneses of the past, and distinct foresight of the future.

87. The conduct of Thariputra on this occasion wears an appearance of rudeness towards his aged mother, which at first hurts the feelings of human nature. But a close examination of all the circumstances connected with this last episode of the great disciple's life shows that he was far from being divested of filial piety. He leaves his beloved master, undertakes a long and fatiguing journey, for the sole purpose of preaching the law to his mother, and conferring upon her a boon of a greater value than that he had received from her. In return for all favors bestowed upon him by his mother, he initiates her in the knowledge of truth, and enables her to enter into the great ways that lead to the deliverance, that is to say, to the state of Niban. It cannot be denied that his language on this occasion partook of an austere tone, sounding harsh to the ears of worldly men, but it must be borne in mind that Thariputra was an old ascetic, dead to all affections of nature, looking upon truth alone in an abstractively pure form without any regard to material objects. He loved the law of truth which he had learned from Budha, and afterwards preached it to others with an unparalleled zeal and fervor. The spirit of Budha lived in him: he desired to see all beings availing themselves of the means of salvation he had in his power to impart unto them, he loved them all with an equal affection; the state of ignorance they were sunk in, deeply affected his compassionate soul and he had but one desire, that of dispelling the thick mist of ignorance by the pure light of truth.

When the instruction to his mother was over, Thariputra desired to be left alone

with his disciples. His last words to them bespeak the humble sentiments of his mind. Though the first member of the Assembly of the perfect, he begs pardon of his inferiors for the causes of offence he may have unwillingly given them, during the long period they had lived together: regardless of all the good he had done unto them, he feels that he could not well part with them, ere he had atoned to them for any wrong, however involuntary, he might have done to some of them.

To those uninitiated in Buddhistic metaphysics, it is not easy to understand and distinctly to appreciate the situation of Thariputra at his last moments. It is stated that he fell into ecstasy or trance, though his soul remained as yet connected with this world by slender and almost invisible ties. This was the last and mighty struggle of a being to disengage himself from the trammels of existence and become free from all exterior influence. Soaring above all that exists, Thariputra's soul passed successively through the four stages she had so often visited whilst engaged in the arduous efforts of investigating truth, preparing to enter the fifth and last one, where she was to stay finally and perpetually, without any further change, in a state of quiescence. When the sage during his meditation has brought his mind to bear upon some object he wishes to contemplate attentively, and thoroughly to comprehend, he at first gets hold of that object by his thought, he then examines it by means of religion: the knowledge he thus acquires, never fails to create a pleasurable sensation; this pleasure or satisfaction conveys to the soul, enjoyment and happiness, he loves the truth he has discovered and he rests fixedly in it. This is the last stage he ever can or wish to reach;—what has the human mind indeed to do after having found truth, but to cling to it, it remains ever attached to it. During the last trance, Thariputra with his almost immensely developed mental faculties, knew comprehensively truth, reflected on it, felt a pleasure in considering it, enjoyed it, or rather fed upon it and at last adhered so perfectly to it, that he became, as it were, merged into it. He then had reached the state of Niban, where he was forever exempt from the influences created and put in motion and activity by matter and passions, in every state of existence. Buddhists, in Burmah at least, owing to their very limited and imperfect education, are unable to give any satisfactory or even intelligible account of the state of Niban or perfection. What is here but superficially stated, has been found in one of the last Buddhistic compositions on this and other metaphysical subjects. Fuller particulars shall, hereafter, be given as to the state of Niban, when the death of one greater than Thariputra shall be related.

88. In Burmah when a person has just given up the ghost, the inmates of the house send for musicians who soon make their appearance with their respective instruments. They forthwith set to work, and keep up an incessant noise during the 24 hours that elapse before the corpse be removed to the place where it is to be burnt. Relatives, friends and elders resort to the deceased's house for the ostensible purpose of condoling with those who have lost their kinsman, but in reality for sharing in the mirth and amusements going on, on such occasions. Strange to say, the thought of death strikes no one's mind, the fate of the deceased is scarcely pitied, nay remembered. Were it not for the presence of the corpse, and the perhaps conventional cries and lamentations of some old women at certain intervals, no one could scarcely, I imagine, *a fortiori* find out the motive that had induced such a crowd to assemble on that spot.

If the departed belonged to a respectable family, in tolerably good circumstances, the funeral ceremony is arranged in the following manner. Presents having been beforehand made ready, intended as offerings for the Buddhist monks, they are invited for the occasion, and their presence is expected in numbers proportionate to the amount of offerings. The procession starts from the deceased's house, and directs its course towards the place of burning or the cemetery. It is headed by the yellow dressed monks, carrying their broad palm-leaf made fans on the shoulder, and attended by their disciples. Next follow the bearers of the offerings in two lines: they are partly men and partly women, but walking separately and apart from each other. The coffin appears next, laid on thick poles, and carried by six or eight men. In front of the coffin, and sometimes at the sides are arranged the musicians who perform all the way, without an instant's interruption, behind the coffin are grouped the male relatives, friends, &c, and lastly the procession is closed by crowds of women attired in their finest dress. The burning place is generally without the precincts of the

town and in the vicinity of some large pagoda. The funeral pile is of a very simple structure; its shape is that of a long square of a moderate size. Two large pieces of wood are at first laid parallel, at a distance of eight feet, other logs of wood disposed at about six or eight inches from each other, are laid across the two first mentioned, so that their extremities are supported on these two pieces. A second set of logs is laid at right angles with the first; a third one placed across the second, and so on until the pile is three, four or five feet high. The coffin is deposited upon it. Fire is set below the pile, by means of inflammable materials which soon communicate fire to the logs the pile is made of. The whole is soon in a blaze and rapidly consumed by the devouring flames. The bye standers talk, laugh, or bury themselves in stirring the fire. As to the Talapoins, they sometimes take position under a neighbouring shed, repeat a few passages of Budha's law, and when they are tired, they give orders to their disciples to take up the offerings and then go back to their respectable abodes. Very often they do not take the trouble of muttering prayers, they depart forthwith with the offerings intended for them.

The fire being extinguished, the ashes, charcoal &c, are carefully searched, and the particles of bones discovered are piously collected by the nearest relatives, and then buried in a hole dug for that purpose near some pagoda.

Persons in good circumstances keep up during seven days, in their houses, a sort of solemnization of the funerals. Every day, in the evening particularly, musicians are keeping up playing until a very late hour at night. The house is, during all the while, crowded with people, who come for the purpose of enjoyment. Some play at various games, others drink tea, all chew betel leaves and tobacco in profusion. This mode, intended either to do honor to the deceased's memory or to afford relief to the grief of the relatives, is rather expensive, and might often prove a heavy drain on the limited means of most of the families. But the spirit of mutual assistance, on this occasion removes the difficulty. Every visitor, according to his means, makes a present of some money to the master of the house. Though the present of the greatest number of visitors, is comparatively small, yet when added together, there is a considerable sum, which is generally more than sufficient to defray all expence that may be incurred. This custom or system of voluntary contributions, burdens no one in particular, whilst it enables a family to make a show of liberality which otherwise would almost prove ruinous in many instances. The custom of burning the dead prevails amongst the Hindoos, the Singalese, Nepaulese, Burmese, Siamese and Cambodians. Though holding the tenets of Buddhism, the Chinese have never adopted this usage. The Mahomedans living in Hindustan and the countries of eastern Asia retain the custom of burying the dead. Budhists have doubtless received that practice from the Hindoos.

89. The custom of making funeral orations for the purpose of eulogising distinguished individuals after their demise, is of the highest antiquity. The sacred records bear witness to its existence amongst the Jews. The present Legend offers repeated instances of Eulogia made to honor the memory of the dead. On this occasion Budha would not leave to another the honor of extolling the extraordinary merits and transcendent excellencies of the illustrious Thariputra. But he had a higher object in view, where he exhibited to the eyes of the assembled Rahans the relics of the deceased, that were all that remained of so celebrated a disciple, who had lived with them for so many years and had just parted with them. It was impossible to give them a more forcible illustration of the truth he had so often announced them that there is nothing permanently subsisting in this world, but that all things are liable to a perpetual and never ending change. The stern Budha gently rebuked the amiable Ananda for the marks of inordinate grief he gave on this occasion, because said he, the law of mutability acting upon all that surrounds us, we must ever be prepared to be separated from what is dearest to our affections; grief on such occasions is useless and quite inconsistent with the principles of a wise man:

To honor the memory of Thariputra and perpetuate the remembrance of his virtues Budha directed that a Dzedi should be erected, on the very spot he had heard the news of his death. A Dzedi is a religious monument very common in Burmah, and to be seen on all rising grounds in the neighbourhood of towns. Within the enclosure of all monasteries, a Dzedi is invariably erected, it is the only purely religious building to be found in Burmah. Its general appearance

is everywhere the same, viz, a cone rising from the centre of a solid square basis of masonry, more or less elevated according to the dimensions of the cone. When the monument is on a grand scale, niches are made in the middle of each side of the square facing the four points of the compass. In those niches are placed statues of Budha, exhibiting him in the usual cross legged position. The size of those religious monuments much varies in dimensions. They range from the height of a few feet to the colossal proportions of the tall Dagon Pagoda at Rangoon.

90. The particulars of the apparition of the evil one, or the tempter, related by Budha himself to the faithful and amiable Ananda, show the incessant efforts made by Manh for rendering abortive to a certain extent the benevolent mission undertaken by Budha to procure deliverance to numberless beings, and supply others with adequate means for entering into, and steadily following the way that leads to it. He had been defeated in his endeavors to prevent Phra from leaving the world and obtaining the Budhaship. He had been thwarted in his wicked designs to weaken the effects of Budha's preachings. Heretics of all sorts had been summoned to his standards to carry on uncompromising warfare against his opponents, but he had failed in all his attempts. Budha had now almost completed the great and beneficial work he had undertaken: his religion dispersed over a vast extent of countries, zealously propagated by fervent and devoted disciples seemed to be now firmly established. The edifice indeed was raised, but it required the action of a finishing hand; the key stone was yet wanting in the vault to render it complete and durable. Manh was aware of all that, hence his last and wily effort for impeding the finishing and perfecting of a work he had vainly opposed in its beginning and progress.

The line of distinction between the Members of the Assembly and the mass of those who merely believed to the doctrines of Budha, without leaving the world is plainly drawn by Budha himself, so there can be no doubt that from the origin of Buddhism, there existed a marked difference between the body of layman and the body of Rahans. Again the body of the perfect, or those who composed what may emphatically be termed the assembly, was composed of men and women, living as a matter of course, separately, in a state of continence and subjected to the disciplinary regulations which we find embodied in the Wini. In Burmah vestiges of female devotees, living secluded from the world, are to be met with in many places, but as already noticed in a foregoing remark, the body of religious females has much fallen off. Its professed members are few in number, and the exterior observance of the regulations is much neglected. The comprehensiveness of Buddhism, its tendency to bring all men to the same level and allow no difference between man and man, but that which is established by superiority in virtue, its expansive properties, all those striking characteristics have mightily worked in elevating the character of the woman and raising it on a level with that of man. Who could think of looking upon the woman as a somewhat inferior being, when we see her ranking according to the degrees of her spiritual attainments among the perfect and foremost followers of Budha? Hence in those countries where Buddhism has struck a deep root and exercised a great influence over the manners of nations, the condition of the woman has been much improved and placed on a footing far superior to that she occupies in that country where that religious system is not the prevalent one, or where it has not formed or considerably influenced the customs and habits of the people.

91. The meal Budha partook of, in company with his disciples at Tsonda's residence, is the last repast he ever made. The violent distemper which followed immediately, is not, says the author of the legend, to be attributed to the food he took on this occasion. On the contrary, that very food, owing to the virtue infused therein by the agency of Nats and Brahmas was rather an antidote against the illness that was to come inevitably upon Phra's person. Previous to the dissolution of his bodily frame, it was decreed that Budha should suffer. No occurrence could ever avert this tragical circumstance. He had foreseen it, and with perfect resignation submitted to what was absolutely to happen. In the early days of Buddhism, when a deadly antagonism with Brahminism began to fill the peninsula of Hindustan with endless disputes between the supporters of the two rival systems, Brahmins with a cutting sneer insulted their opponents by reminding them that the founder of their creed, whom they so much revered and exalted, had died from the effects of his having indulged too much on pork. When the writer was in



Barmah he chanced to meet with a shrewd old Christian, who, he it said *en passant*, was more fond of disputing on religion, than paying regard to the practice thereof. He boasted of having at his command deadly weapons against Budhists and unanswerable arguments in his inexhaustible stores against the vital parts of their creed. The chief one which he always brought forward with a Brahminical scorn and laugh was that Gaudama had died from his having eaten pork. He always did it with so much mirth and wit that his poor ignorant adversaries were completely overawed and effectually silenced by his bold and positive assertion, leaving to him uncontested the field of battle, and allowing him in carry away undisputed the palm of victory. This way of arguing may prove a very amusing one though it can never be approved of, as error is never to be combated by another error or a false supposition. The Burmese translator was doubtless aware of the weak side offered to the attacks of malignant opponents by the unpleasant distemper that followed the last meal of Budha. He strenuously labors to defend the character of his hero, by proving in the best way he can, that such a bodily disorder was necessarily to take place, in order to set in relief the patience, composure and other sterling virtues of the founder of Buddhism. The text of the Legend has been read over several times with the greatest attention for the purpose of ascertaining the reasons put forward to account for such an occurrence, but the result has proved unsatisfactory. A heavy veil wraps in complete obscurity this curious episode of Budha's life. All that can be said is this: it was preordained that Budha should be visited with a most painful distemper, ere he attained Niban, and so it happened.

To prove that the eating of pork had nothing to do with the distemper that followed, we have the authority of Gaudama himself who commended the delicacy and flavor of that dish, and placed it on the same footing with the delicious Noga-na he ate on the morning of the day previous to his obtaining the Budhaship. He desired his ever faithful attendant Ananda to repair to Tsonda's place and explain to him the great reward reserved to him for having presented him with such an excellent food.

The practical working of the Budhistic system relatively to alms-giving, deserves some notice. A man bestows alms on the Rahans, or spends money towards furthering some religious purpose; he does so with the belief that what he bestows now in the way of alms, shall secure to him countless advantages in future existences. Those favors which he anticipates to enjoy hereafter are all of a temporal nature, relating only to health, pleasures, riches, honors and a long life, either in the seat of man or in the seats of Nats. Such is the opinion generally entertained by all Budhists in our days. Talapouns make the preaching of the law chiefly in enumerating the merits and rewards attending the bestowing of alms on persons devoted to a religious mode of life. In this respect the practical result of their sermons is certainly most beneficial to themselves. The spiritually minded Budha seems to have levelled a blow at concupiscence and covetousness, by openly stating that alms have the power to stem the current of demerits, to give rise and energy to the principle of merits, and to lead to wisdom, which enables man to weaken gradually concupiscence, anger and ignorance and open and prepare the path to Niban. Many excellent practices enforced by Buddhism, have been, if the expression be correct, reduced to a mere lifeless skeleton, by ignorance and passions, but they would appear in a very different light, were they animated with the spirit that has brought them into existence.

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## CANNIBALISM AMONG THE BATTAS.

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TO THE HONORABLE

SIR T. S. RAFFLES,

§c. §c. §c.

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HONORABLE SIR,

IT being a disputed point whether any of our fellow men actually eat human flesh, I was desirous during my stay at Tappanuly in November last to ascertain if this, as is reported, be a practice of the Batta people, who inhabit the northern districts of Sumatra. I shall now submit to you in a few words the result of my enquiries, and should you be of opinion that the evidence in confirmation of the existence of such a practice, is at all strengthened thereby, you will of course make what use you please of it.

I found the fact was well known to the Resident's Assistant and all the Malays living on the island, and commonly admitted by the Battas themselves. Having heard that a case had recently occurred in the district of Sabluan, at a market about ten miles from the Company's Settlement, I repaired thither in order to ascertain the particulars on the spot. Meeting at this place with about twenty of the Batta chiefs, I mentioned to them my having heard that two men had been publicly eaten at that Onun or market about a fortnight before, and wished to know their reasons for perpetrating so inhuman a deed.

An old Panghulu answered me, that the two men to whom I alluded had been taken in the act of breaking into the house of their chief, who was an elderly female. They had previously intimated to a relation of this chief their intention to murder her and her son, who was about twelve years of age, and then to usurp the chief power. These men, he added, were condemned to be eaten, that we all might have an opportunity of expressing our detestation of the treasonous act they intended to commit. No person thought of denying the fact; it was too public: All the rajas round the Bay were invited to attend; but in justice to human nature, miserable and vile as it here appears, I am happy to be able to add on good testimony, that not more than a fourth of the spectators could be induced to join in this horrible feast of human gore.

I am, Honorable Sir,

Your obedient and obliged Servant,

R. BURTON.

Fort Marlborough, June 6th, 1822.

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## NOTICE.

It is proposed to commence a new series of the Journal with the volume for 1856, and as the plan of quarterly publication has been found more convenient than a monthly one, it will be followed. Every effort will be made to complete the printing of the volume for 1856 within the year, so as to admit of a regular quarterly issue in future. The Editor is conscious that a considerable portion of the Journal of late has been occupied with matter, which, however interesting to Ethnologists, possesses but little attraction to the general reader. He feels that in devoting so much room to Comparative Philology, he has already trespassed too far upon the forbearance of the majority of the Subscribers of the Journal, and that to secure a continuance of the support which has hitherto been accorded to this periodical, it is necessary to give it a more general character, and to resume the systematic prosecution of the more popular of the objects with which it was commenced. In future, therefore, the purely linguistic contributions of the Editor will be printed separately and issued from time to time as supplementary numbers.

The Editor takes this occasion to express his thanks for the continued support which the Journal has received both from Contributors and Subscribers, and his regret that it has not been in his power to make it more worthy of the aid they have afforded him in carrying it on. He believes that the wishes of the Subscribers will be best met, by increasing the proportion of papers descriptive of the geography, populations and productions of the different parts of the Archipelago, and while he will supply as many as he can, he will feel grateful for every contribution of the kind, whether it be original or a translation or compilation from the Dutch periodicals.



THE  
JOURNAL  
OF  
THE INDIAN ARCHIPELAGO  
AND  
EASTERN ASIA.

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ETHNOLOGY OF THE INDO-PACIFIC ISLANDS.\*

By J. R. LOGAN:

LANGUAGE.

PART II.

THE RACES AND LANGUAGES OF S. E. ASIA CONSIDERED IN  
RELATION TO THOSE OF THE INDO-PACIFIC ISLANDS.

CHAPTER V. (*Continued*).

ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE DRAVIRIAN FORMATION,—EMBRACING NOTICES OF THE FINO-JAPANESE, CAUCASIAN, INDO-EUROPEAN, SEMITICO-AFRICAN, EUSKARIAN AND AMERICAN LANGUAGES.

Sec. 12. RECAPITULATION AND INFERENCES.†

IN our present enquiries we cannot go back to the period when there were no languages in India and the adjacent countries, or when some of the present great formations had not yet come into existence. We must reason on the phenomena which Southern Asia has presented to human observation since any permanent records of it began to be kept. As far as observation can carry us into the past, this region has always presented several races

\* Continued from p. 272.

† See Sec. 10 for summary of the comparative structural characters of Dravirian.

and formations as at present, and tribes and languages belonging to different races and formations have always been more or less intermixed and subject to change from mutual influence. In those human eras into which ethnic research has hitherto extended, South West Asia and Asonesia, considered as one continuous province, have been contemporaneously occupied by, 1st, archaic Indo-Australian, 2nd, Papuan, 3rd, Tibeto-Chinese or Ultraindian, 4th, Dravirian, 5th, Scythic, 6th, Iranian, and 7th, Semitic races and formations. In all historical times we find several of these intermixed in the same territory and influencing each other. We also find that at different historical eras each of the three last has become expansive or migratory. Irania from very remote antehistoric ages appears to have been occupied by these three races, at an earlier period by the 4th also, and probably at a still earlier by a race akin to the 1st. Hence in later eras each of the three last must always have been more or less subject to mutual influence. In the same manner the peoples and languages of India must have been exposed, throughout these eras, to the influence, in different degrees, of the three races of Irania or of the predominant one. In great periods of archaic time the language and race of the most dominant or diffusive people of Irania and India probably varied, as it has done in historic eras. Nor, in our endeavours to obtain some firm footing in the archaic world, must we overlook the mere possibilities arising out of the distribution and character of the great races. Scythic, Semitic, Iranian, Semitico-Iranian, Scythico-Semitic, Scythico-Iranian or other mixed formations like the modern Indian, may have successively prevailed in Irania. There may have been Semitic or Iranian tribes speaking Scythic dialects or Scythic tribes speaking Iranian or Semitic dialects, and each influencing the ethnology of India. This peninsular region being open on the Iranian side, it is probable that it, also, in all later eras, has been occupied by more than one race and linguistic formation.

So far as we know, there never was a period when any one of the great formations existed in S. W. Asia in a completely isolated position. Each, so far as we can trace it, has always been surrounded by other formations. In every considerable ethnic revolution and movement of archaic times, as in the Brahminic, Medo-Persian,

Scythic and Arabian conquests of historical times, tribes of distinct races must have come in contact, one race predominating or at least maintaining its position in the lands of others by its superior power. Wherever the nature of the country caused actual contact and intermixture, assimilation must have begun. One race might change its language sooner than its physical character, or *vice versa*. In mountainous countries and wide steppes, isolated or nomadic tribes under favorable circumstances would retain their native formation, even when subject to a foreign race. Hence immediately to the north of Irania there have probably always been wandering Scythic tribes in the later eras of human history, although their territories have been embraced in Semitic or Arian dominions and even been contemporaneously occupied by an Arian or Semitico-Arian people. But in fertile river basins inhabited by fixed industrial communities, an intrusive dominant people cannot remain pure, much less can the native and the introduced linguistic formations be preserved unmodified. Wherever, in the ethnic revolutions of Irania and India, two races and formations have come permanently in contact under such circumstances, mixed tribes and dialects must have resulted. The connected province formed by the basins of the Indus and Ganges must have been the seat of settled and civilised populations from the time when agriculture and villages first existed in Irania and India, and it is probable, therefore, from the natural attractiveness of a large portion of that province, from its enervating and demoralising influence on its successive occupants, and from the permanent existence in the countries to the N. W. of more robust nations, that the formation of hybrid races and languages has been a standing characteristic of its ethnology. The same remark is applicable to the more open and fertile tracts of Southern India. Grant that fixed industrial populations existed in these countries prior to the later movements of western races into India, and the gradual modification and even transformation of the principal Indian languages is a necessary consequence. Glossarial facts prove that the Indian tribes were settled and civilised prior to the Arian era, and as the pre-Arian arts were derived from different sources, and indicate the lapse of a long period of civilisation and of intercourse with foreign races, there was room for a repeated production of hybrid formations

before the Indian languages acquired the forms which they now have, and which, in their turn, will prove the foundations of new formations, if they are not entirely replaced by foreign ones.

The relation of the Dravirian physical and linguistic formations to these of the provinces around India is the first point to be considered in an attempt to ascertain their true ethnic affinities. The Chinese, Siamese and Mon-Anam nations differ essentially from the Dravirians in person, in language and in other respects. The North Ultraiadians and the Tibetans are very remotely connected with them. Physically, both are purely Turanian and their languages, although of a similar fundamental type, are at a great distance from the Dravirian both in ideologic development and in phonology. The phonetic difference is so great as of itself to prove that the Dravirian formation was not derived from the countries adjoining the Indian peninsula on the east and north while these were occupied by the Tibeto-Ultraiadian. It is also improbable that it was derived from Upper Asia through Tibet and the Himalayas, because there are no grounds for supposing that the Tibeto-Chinese race are not the oldest occupants of these countries, and any ethnic movement on so great a scale and so prolonged, as to diffuse a harmonic phonology like the Dravirian or Draviro-Australian over that barrier region and thence over India, would have left traces of its presence distinguishable from those which mark the comparatively modern intrusion of Scythic languages. The affinities between Draviro-Australian and Tibeto-Ultraiadian, considerable and fundamental as they are, appear to be referable to a stage of the former long preceding its harmonic development and its spread to India, and to be only less archaic than those with Chinese. The physical and mental characters of the Chino-Tibetan races who have immemorially and aboriginally—as far as that term may be applied to the human tribes of any region—occupied the lands that bound the plains of the Indus and the Ganges on the north and east, forbidding us to seek further in these directions for the fount of the Draviro-Australian alliance, and its various linguistic developments being far advanced beyond the Tibetan, Chinese and Mon-Anam, and in a direction similar to that of the great harmonic alliance of Asia, we must look for the immediate source of the formation to the basin of the Indus.



This province is chiefly connected with S. W. Asia in two directions,—in a northern, through the head of the basin in Balti and the Hindu Kush, and in a western, where it is conterminous with Afghanistan and Beluchistan. The Dravirian formation, according to every ethnic probability, must originally have been an extension of a similar one that prevailed in this region, or at least some of its principal and distinctive elements must have been derived from a formation so located. There are several objections to our considering the head of the Indus as the main direction in which the Dravirian formation was spread to the south and east. It is quite possible and even probable that Balti was not Tibetanised until a comparatively recent period, and the previous population, or rather the pre-Arian, may have been an extension of the adjacent Scythic race, to the northward. But this race, in all its Mid-Asiatic varieties, speaks purely Scythic languages and such languages could not have originated the Dravirian. They might certainly have supplied one fundamental ingredient, but some of the non-Scythic characters repel us from attempting to trace the history of the formation exclusively in the great Scythic field, and direct us to the western province between the Persian Gulf and India, which, in a wide sense, may be termed Irania, for there is no distinct geographical or ethnic division between the eastern and western portions. In this province and that immediately to the north of it as far as Transoxiana, two races and two linguistic formations have prevailed from remote antiquity,—the Iranian and the Scythic; but a third race, the Semitic, immemorially located on the western confines of the province, has also, both in archaic and historical times, exercised a great ethnic influence in it, while a fourth, with claims to at least an equally ancient occupation of the N. W. mountain boundary of the Caucasus, has intimate linguistic affinities with all these formations.

In later historical times the Scythic race has chiefly predominated in the north and occasionally in some portions of Irania also. The present Scythic tribes appear to belong mainly to the great hordes of Tartar invaders—Turks and Mongols—who, in comparatively recent ages, have occupied the region between China and the Caspian, intruding into Tibet and Irania, but their numbers and the extent and duration of their Indian domination

were not such as to produce a marked impression on the Dravirian languages. In earlier historical times the Iranian race, civilisation and linguistic formation appear to have been exclusively predominant over Irania, and this supremacy must have endured for a considerable period, because it embraced an unbroken belt from the Black Sea to the mouths of the Ganges; while its spread over Europe is an additional evidence of its having, for the time, prevailed over the Scythic or Turanian hordes and thrown them back on Upper Asia. To this race the present Arian and Arianised nations of India, the Affghans, the Beluchis, and the wide spread Persians or Tajiks mainly belong, although a Semitic element is found in most.

The history of the race in its Irano-Gangetic province evidently involves at least two great diffusions. Of the oldest the languages and nations of India preserve the only distinct record, with the exception of the Sia Posh. From the position and character of the latter and the general distribution of the Indo-European formation, it is probable that the Arian sub-formation preceded the Persian in Eastern Irania, and consequently that dialects akin to the Sanskrit prevailed there at one era contemporaneously with the older languages of the land.

The Arian formation partially transformed the phonetic and ideologic character of the prior Dravirian languages of northern India and displaced the greater portion of their vocabularies, producing the present hybrid tongues from Guzerathi on the west to Bengali on the east. Its influence on the Vindyan and Southern branches began later, and although it has been continued since Sanskrit ceased to be spoken, it has only very slightly affected their phonology and ideology; but its glossarial action has been considerable.

At a period subsequent to the advance of the Arian tribes from Irania into India, another branch of the same race appears to have been modified both physically and in language, institutions, religion and the general character of its civilisation, chiefly in remote ages through the influence of the great Semitic nations of the Euphrates but also in later ages through the eastern spread of the Arabs. This branch was ultimately diffused over all Irania and the Turanian countries adjoining it on the north. As far as the Indus the

Semitic physical type, and the Zendic or Persian linguistic form, are strongly marked. Through the widely spoken Hindustani the latter has, in modern ages, gained a considerable glossarial and phonetic diffusion in India. In the Zend phonology the Semitico-African element is strongly marked, and this is one of its most fundamental peculiarities when compared with Sanskrit. This sub-formation does not appear to have influenced Dravirian.

The physical character of many of the Dravirian tribes and castes, and perhaps some of the traits of the language, point to a still more archaic diffusion of the Semitico-African element to the eastward. The modern or western Iranian idiom has also become that of some Scythic tribes of eastern Irania. But there is strong evidence that prior to the great eastern advance of the Indo-Germanic race, large portions of Irania were occupied by dominant Scythic tribes. The Iranian languages themselves, in phonology, ideology and glossaries shew, when they are compared with the only other formation spoken by a kindred race, the Semitic, that the Scythic formation, or formations akin to it, had been extended into Irania at a period coeval with the development of the Iranian linguistic type itself. It is possible that some of the northern Scythic tribes of Afghanistan are pre-Iranian, and there seems no room to doubt that one of the southern, the Brahui, is a genuine representative of the pre-Arian population of S. E. Irania or Beluchistan, as the Jats appear to be of the lower Indus. The Brahui physical type is Scythic, and the language has some strong Dravirian affinities in glossary although it is probable that the grammar has become Iranised. The other vocabularies of eastern Irania and the Indus, whether spoken by Semitico-Iranian, Indian or Scythic tribes, have also a considerable number of non-Iranian vocables that are Dravirian and in many cases Scythic or North Asiatic also. The Dravirian forms sometimes resemble those of the Indus and east Iranian glossaries more closely than the Scythic. From this it may be inferred that they were received into India through the pre-Arian languages of the Indus, because the advance of the Indo-European race into Eastern Irania and India must have cut off the further diffusion of the native vocabularies to the eastward, and arrested the regular flow of Scythic words into Irania and

thence into India. We may conclude that the Scythic element of the ancient Indian tribes and languages was immediately received from eastern Irania at a period when it was mainly Scythic. But the Semitico-African element both in Dravirian and Iranian requires us to believe either that the pre-Arian Scythicism of this province was mixed with Semitico-African ingredients, or that it was, in its turn, preceded by formations of a more archaic character, having fundamental affinities both with Scythic and Africo-Semitic. In pre-Arian India the Africo-Semitic physical element must be the most ancient, because it is chiefly marked in some of the most southerly tribes and is found also in Australia and amongst the Papuans. The more decided or pure Scythic character of the Brahui and several of the ancient Indian tribes of the Dravirian formation must be referred to a later era when the Scythic race prevailed in eastern Irania. The partially Africo-Semitic basis of the Dravirian race and languages and of the Australian must belong to an east Iranian formation prior to that represented by the Brahui. While therefore the latter affords one strong reason for believing that the more recent and predominant Scythic element of the Dravirian tribes and languages was derived from the west and not from the north, the commencement of the Semitico-African formation immediately beyond Beluchistan and the immemorial existence of the Iranian in Irania, justify the conclusion that those typical physical and linguistic traits of the Dravirians which are not Scythic but rather African, Semitic or Iranian were received at a still earlier period from the same province.

The Draviro-Australian alliance, when considered in its pre-Arian condition, differs so much in its several developments, and there is so great a break between the Indian and the Asonesian forms, that we can only consider the Arian as one of the latest and most partial of the intrusive elements that have modified the Indian branch. Between the Australian condition and the proper Dravirian, or that which immediately preceded the Arian, the interval, whether measured by physical, linguistic or mental and industrial change, is very great, and its Indian history must have been complex. It probably began with negro tribes and proto-Scythic languages like the human histories of Asonesia and Africa, while its later eras were marked by the predominance of

advanced Scythic, Semitic and Semitico-Scythic races, and by the influence of Semitic and Scythic languages. The great and archaic Scythic movements that appear to have preceded the proper Semitic in S. W. Asia, and are so deeply impressed on the Caucasian and African languages, were felt in India also and through it in Asonesia. The early Caucaso-Semitic movements which preceded the historical Semitic, and must have been associated with the civilisations out of which the Egyptian, the Babylonian and the Phœnician grew, have left their impress on the Dravirian languages as well as on the Nilotic and North African, and the partial approximation of the Dravirian physical type to the Semitic, with the civilisation the Indian nations had attained prior to the Arian era, need not be sought in any remoter cause. There is no reason to suppose that the influence of the Semitic race and civilisation on the Dravirian has ever been wholly interrupted since it first began. When the Arians broke through the connection which in all probability previously existed by land, it is not likely that the maritime intercourse between the Semitic and the Dravirian ports was interfered with. The Dravirian formation is so archaic that not only all the great historical ethnic developments of S. W. Asia, but the first rise of the Semitic power and civilisation, and all the later movements and revolutions of this region, including the Indo-European, must have taken place in its presence. Its history goes back beyond the beginning of the civilisation of the Euphrates and the Nile, and much that distinguishes the Dravirians from the Australians may associate itself with the most archaic and as yet undefined periods in the gradual progress of the Semitic, Caucasian and Iranian tribes from a barbarism more than African. The general character of the Indo-Australian formation proves that in the most archaic era to which the positive ethnology of S. W. Asia can as yet ascend, the Scythic linguistic element predominated in Eastern Irania and India. But whether a Scythic or an Africo-Semitic race and formation was the oldest of all, or which was the older of the two, in this region, is not clear. The early extension of the Semitico-Libyan or Libyan formation over the great outlying region of Africa, its undoubted Asiatic derivation as evinced by its Caucaso-Scythic affinities, its fundamental proto-

Scythic traits, the character of the purer African physical type, and the presence of a similar element both linguistic and physical in the Dravido-Australian family, render it probable that Libyan races and languages long preceded the Dravido-Australian in S. W. Asia, and mixed with the intruding and dominant proto-Scythians who introduced that formation. The Egyptian stage of the Semitico-Libyan formation is cruder than the Australian stage of Dravido-Australian. It is nearer the Tibeto-Ultraindian and Chinese developments. Australian has much of the advanced proto-Scythic development which predominates in the American, the Zimbian, and the Euskarian formations, and is only less prominent or more modified in the Indo-European, Scythic and Caucasian. Egyptian shows that the Semitico-Libyan mother formation had separated from the great trans-Chinese stock of Asia prior to the attainment by the latter of a highly agglomerative and harmonic phonology. It spread to the south west, took possession of Africa and long remained faithful to the archaic West Asiatic type, while in Upper Asia that type changed, and gave rise to various higher phonetic formations, including the early Indo-Australian. That formation stands in its origin at a great distance behind the Indo-European and even the Ugrian, but the early Semitico-Libyan goes back for its origin or point of divarication to an era far beyond the Indo-Australian. The latter distinctly associates itself by its phonology and structure with an archaic condition of the Scythic development, Semitico-Libyan with a condition of the Mid-Asian development between Chinese and Scythic. In this early or Scythico-Libyan stage it is probable that languages of the oldest Libyan type were not confined to the S. W. extremity of Asia and to Africa, but extended eastward along the northern shores of the Indian Ocean, and may have preceded the Dravido-Australian on some portion of the line along which it advanced to Indin.

Be this as it may, the history of the Dravirian linguistic formation is far from being fully elucidated by a comparison of it with the other formations of S. W. Asia,—Tatar, Iranian, Semitic and Caucasian. It is not closely related to any of these, and its more fundamental affinities with them, large as they are, go back for their sources to older developments, embracing a still wider range

of formations. The individuality of the Dravirian formation, the impossibility of subordinating it to any of the S. W. Asian formations, and its great antiquity, are illustrated by the fact of its archaic prevalence in a cruder condition in Asonesia. When the characters of the present predominant formations of Ultraindia and of all Asonesia save Australia are considered, Dravirian appears to stand out from the Iranian and the Tatar as an older S. W. Asian formation, which has survived great changes in the distribution of races in Southern Asia, and which by the crude form it retains in Australia, proves that the more Iranian and Scythic character it has received in India was superinduced on a native basis of independent origin. The earlier S. W. Asian history of Dravirian, when thus viewed as a prior formation to Iranian and Scythic in Irania and India, is hardly capable of being traced, because there no longer remains any formation which can be considered as the ultimate or native one and as the limit of our researches in this region. We can ascertain affinities with other and more distant formations, but these will not supply us with all the elements of the ancient linguistic history of the Irano-Indian. When the actual barrier languages on the west are removed, we no longer have any clear guide to the archaic limits or movements of Dravirian. It may have been developed in Irania or India from a type still cruder than the Australian, or, as is more probable, it may have been derived in its Australoid type from a distant land of origin. When we go beyond the Tatar and Iranian and come to the allied Ugrian languages on the north and east, and to the Caucasian on the west, we find strong Dravirian affinities, and it has others with the N. E. Asian languages and even with American which appear to belong to a proto-Scythic development. The languages of China and Tibet on the one side and those of Egypt and Africa generally on the other, show that the intermediate region must have undergone great linguistic changes before even the earliest variety of Indo-Australian was introduced or formed. From Tibet and Egyptian—the salient members of the old formations on the two sides of the Irano-Semitic region—to Draviro-Australian, the phonetic advance alone is so great that it necessarily implies a succession of formations, although it does not follow that they were developed in this province. The

Dravido-Australian phonology is archaic Scythico-African and not proper Scythic, Semitic, Iranian or Caucasian. The ideology is mainly Scythic of a very archaic character, or rather proto-Scythic, for it is not merely a branch of the Tatar or even of the Ugrian. The connection is through an older and more Americo-African, Caucaso-Semitic, and Iranian form of the inversive development, and through that form in one of its early and crude stages. Iranian in its basis is more closely akin in some respects to Ugrian than Dravirian, the pronouns for example being the same. Dravirian again has special Caucaso-Semitic and Caucaso-African affinities. The conclusion appears to be that it was a form of the proto-Scythic or harmonic and inversive development that preceded not only the Tatar but the Iranian and the allied Ugroid Scythic in Irania, and from its archaic character and early migration to the south west of Asia and thence to India and Asonesia, had independent relations with the Caucasian, the Semitic and the proto-Iranian on the one side, and with the proto-Scythic languages of Middle and Northern Asia on the other. In one point of view it is the oldest and earliest formation of the Scythic class that is now extant, its position in Asia and Asonesia combining with its general character to prove this. In another point of view it is a distinct and more ancient formation, but of the same development.

The glossaries by themselves afford considerable evidence that the Scythic or proto-Scythic formations that prevailed in S. W. Asia, spread into Africa and India, and affected the vocabularies at least of the Caucasian and Iranian languages, long before the Turks and Mongols advanced from the remote east, were allied to the Ugrian, Samoiede, and Yeniseian. If the Caucasian and Ugrian vocabularies yield strong evidence of the two formations having been not only archaically connected but in contact in periods long subsequent to their first development, the Dravirian vocabularies preserve proofs of a similar connection and contact with the Caucasian and the Ugrian, while their direct Chinese and N. E. Asiatic affinities point to a more eastern mother-land than Irania or any other portion of S. W. Asia. If the evidence of language may be trusted, the Dravirians were one of the oldest nomadic races who advanced from Upper Asia to Irania and India.



The character and position of the Semitic-Libyan formation and of the African tribes renders it probable that the Dravido-Australians found formations of this kind established in S. W. Asia, and that by mixture with them the Semitico-Libyan traits of Dravido-Australian were acquired. The pre-historic revolutions, combinations and amalgamations amongst the nomadic hordes of Asia, probably present too complicated a subject to be unravelled by ethnology. The languages of India have affinities not only with all the Turanian formations, but with the Iranian, the Africo-Semitic, the Tibetan and the Ultraiidian. To read the ethnic history of India we must first decipher that of Asia and Africa in its leading incidents, for the Dravido-Australian formation strikes its roots into the Chinese even more deeply in some directions than the Scythic languages. All attempts to trace the Dravirian formation to its ultimate sources must be illusory, because its antiquity is obviously so great that from the time it existed in its earliest development to the era when it assumed the form it now has in the principal languages of the South, there must have been a gradual extinction of many cis-Indus dialects and languages in which successive varieties of the formation were evolved, and of many trans-Indus ones which illustrated the formation in its pre-Indian history and development, or were instrumental in producing changes in it subsequently. Between it and all the adjacent formations there is a great break and even the chain of connection with Scythic wants many links. On the whole, we must be satisfied with the conclusion that, strong as its foreign affinities of all kinds are, the Dravirian formation cannot be considered as a branch of any existing Asiatic or African one. It stands by itself like the adjacent Iranian system, and represents the most ancient form of language which can be recognized in India. Its extreme antiquity in this province is proved not only by the nature of its affinities to other languages of Asia and Africa, but in a still more striking manner by those with the most archaic formation of the Indo-Pacific islands, now best preserved in Australia, although even there greatly modified. The prevalent formation of Southern India is probably that modification of the Indo-Australian type which

characterised the language of the most civilised and powerful nation of India in the era anterior to the intrusion of the Arians and also, in all likelihood, to that of the Turanian tribes of Ultraindia and Tibet. The basis of the Australian is probably one of many varieties of the same formation which were formed at a much earlier period when the Indo-Australian race spread over India, Ultraindia and Asonesia. It may be concluded from the facts mentioned in Chap. II that the Australians have, in a great degree, retained the physical characters of this race, and the barbarism which still distinguishes many other insular tribes, the Simang of the Malay Peninsula, the Andaman islanders and some of the more sequestered tribes and degraded castes of India (including Ceylon) can leave little room for hesitation in adopting the opinion that the Ultraindian and Indian race, whose migrations gave the earliest known population to the eastern islands, had not advanced beyond the Australian grade of culture when these migrations commenced. It may be doubted whether the Celtic or earlier diffusive branch of the Iranian stem had itself attained a higher grade when its western movement began. Those tribes who were most remote from the later Semitico-African sources of civilisation, such as the insular Britons, continued to the age of the Roman invasion in a state of barbarism in some respects more degraded than the Australian, or the lowest Dravirian or African. If the Dravirian formation prevailed in India at a period when its tribes were similar to the Australian in character and civilisation, it must have been a widely diffusive one before the rise even of the Tatar nations. This is consistent with the relations of Dravirian to the Scythic and other harmonic Asiatic formations. In phonology, ideology and roots it is more closely connected with Scythic than any other formation, but as it has affinities with remote N. E. Asiatic and with African languages, it is associated with a period of the Scythic development in which the proper Tatar hordes had not yet overspread middle Asia, and when the general civilisation of the world was perhaps not above the Australian level.

In some respects the Indo-Australian formation, although more akin to the Scythic than to any other, goes back to an era prior even to the events in which the present Scythic development originated. It connects itself also by some fundamental traits, as well

as glossarially, with the non-Scythic alliances of S. W. Asia, particularly with the Caucaso-Semitic. The pure phonology is more harsh and less harmonic than the Scythic and African. The distinction of sex in the pronouns is Iranian and Semitico-Libyan, and the pronominal roots themselves have not been derived from a distinctively Scythic source. If the immediate mother tongues both of the Indo-European and the Dravirian formations originated in Irania, the latter should naturally have more intimate affinities, whatever their age may be, with the former, than the remoter Tartarian languages, in other words it should be the most Arian of the inversive languages. In examining this point it must be borne in mind that the Southern being the most distant of the Indian languages from Irania, would probably possess fewer traits in common with the proper or later Arian tongues than those of N. W. India.

It may be concluded that the stock from which the ancient Indo-Australian tribes were derived was not Scythic, at least in the current sense of that term. All the ethnic facts favour the opinion that the race was, in its era, an influential and diffusive one of S. W. Asia, whence it extended itself into India as the Arians did at a later period in the history of the world. It is possible that the protoplasmic Indo-Australian race is older in India than the linguistic formation, but there is no reason to think that this is the case. At all events it seems hopeless to attempt to grope our way back beyond the Australian era. The basis of all historical inference must be the fact that the oldest race and linguistic formation of India were akin to the Australian. We must conclude that before the rise of the historical Scythic nations a similar formation was predominant over a large province in Asia, that it extended to the shores of the Indian Ocean, and while located in S.W. Asia was there modified by contemporaneous formations of an archaic Caucaso-Iranian and Caucaso-African character. The Scythico-Semitic character of the Indo-Australian formation is consistent with that of the race itself, which is at once Africo-Semitic and Mongoloid but the former more than the latter. The physical type became in large degree southern although the language retained a northern form. How such a change can be produced is explained by many examples. In

much later times the Turks, a pure Scythic race when they entered the S. W. province of Asia, have acquired an Irano-Semitic physical type while retaining a Scythic language. That successive families of the Dravido-Australian race were also dominant before the rise of civilised Caucasian, Semitic and Indo-European tribes in S. W. Asia, is proved by the very fact of their having been able to migrate over the extensive and continuous Dravido-Australian region and from a more northern land without being cut off or absorbed on the way by more powerful tribes. When such a race sent forth the great swarms of men by which India and Asonesia were first peopled, the progenitors of the existing S. W. Asian nations must have been inferior to them in power. The Turanian movements to the southward, which commenced so early as to modify the languages of the eldest known tribes of Africa, India and Asonesia, must have continued as the general civilisation of Asia increased. The Dravirian languages when compared with the Australian afford strong evidence of this in the numerous terms of Asiatic civilisation which they possess in common with Scythic tongues and which are absent in the Australian vocabularies. The subject is elucidated in another place, but it should be remarked here that the Dravirian affinities with the Asonesian languages are not confined to the Australian, although the most archaic and fundamental are chiefly found in the latter. It should also be observed that the Australian and other Asonesian affinities of the ancient Indian languages extend to all those that still remain, and are not confined to the South Indian. On the contrary, they appear to have been mainly with the ancient Gangetic languages, and even those Asonesian vocables that are now found in South India only, were probably derived from Gangetic vocabularies which have since lost these words or have themselves ceased to be spoken. The Asonesian vocabularies also contain numerous words of a similar phonetic structure to the ancient Indian, but which have no representatives in any known Indian language now existing, although they have Scythic, N. Asian, Iranian, Caucasian or Semitico-African affinities. Allowing for those that may have been received directly from the Malagasy and East African formations and from Japan, the great mass doubtless found their

way to the islands through the basin of the Ganges and Ultraindia for their diffusion in the most ancient insular vocabularies, including the Australian, must have long preceded the era of a direct navigation between Southern India and Ultraindia or Indonesia. Of those chiefly found in the vocabularies of the more civilised and maritime tribes of Asonesia or within their range of locomotion, a large number were probably derived from India in the era immediately preceding the Arian, when the civilisation and maritime skill and enterprize of the leading Indian nations appear to have attained a high grade, and when their boats became the models of the Ultraindian and Malayu-Polynesian.

From the Australian era of Indian ethnology to that which immediately preceded the advance of the Arian race beyond the Indus, there must have been a great lapse of time. Of this we have some measure in the changes which had taken place in the Indo-Australian region. In Asonesia the Papuan race and formation had spread over the islands, obliterating or modifying the ancient tribes and languages. In India the leading Dravirian tribes had probably been already improved physically by mixture with immigrants of Scythic and Semitico-Iranian race. Their civilisation and languages had certainly been deeply modified by foreign influence. Making every allowance for what the Australians and other eastern tribes may have lost when they left the continent and became insular, it is probable that most of the arts for which the Dravirians have non-Sanskritic names were acquired by the race subsequent to the Australian era. Many of these names have Scythic, Iranian, Semitic, Caucasian and African affinities, and it may be concluded that the civilisation of the principal Dravirian nations was mainly derived from foreign immigrant tribes, settlers and traders who entered India from the North West or visited its coasts from the northern and western ports of the Indian Ocean. The principal nations of the South are so closely connected in person, arts and language, that we cannot refuse to recognize in them the influence of one dominant and civilised people which at a remote period raised itself above the level of the barbarous tribes of India, and then spread itself by destroying, breaking up or transforming a large number of

these throughout the more open country, as the Arian race afterwards did in the basin of the Indies and Ganges. The difference in physical characters between the higher classes of these nations and some of the lower castes and hill tribes, is so great as to indicate a large influx of a foreign people, and it is possible that the higher civilisation originated in a race of conquerors who were not sufficiently numerous to maintain their own language. Whatever nations,—Scythic, Iranian or Semitic—preceded the proper Brahminic Arians in the N. W. of India and the adjacent countries beyond it, must have influenced the principal or more civilised and exposed Dravirians. Such influences operate, and must have operated in all ages, wherever human races differing in power or civilisation come in contact, and the tribes of India have necessarily been always in immediate contact with tribes belonging to the races that predominated in succession to the westward of the Indus. The glossarial affinities with the Pashtu, Pashai, Brahui and other N. W. languages, although pre-Sanskritic, may thus be comparatively modern. They tend to shew that the East Iranian and North Indian glossaries were connected with the South Indian prior to the diffusion of the Brahminic formation and Sanskritic vocables into India, and they thus help to strengthen the other reasons for supposing that the grammars also were akin to the Dravirian and Scythic before they were modified by the Arian. The next great revolution in Asonesian ethnology after the Papuan, serves also to illustrate the history of the Dravirian in the era which immediately preceded that of Brahminic predominance, and was probably marked by the influx of earlier tribes of the same race. The great southern movement of the Chino-Tibetan race which gave a Malayu-Polynesian population to Asonesia and a Chino-Ultraindian and Tibeto-Ultraindian to the trans-Gangetic peninsula, affected not only the middle and north Gangetic race but the Vindyans also. The influx of this race from the east and of pre-Brahminic Arians or allied tribes from the west was probably contemporaneous at an early period, originating the mixed type which predominated in the ancient Niha-Polynesian branch of the Gangetico-Ultraindian Asonesians. The pre-Brahminic Arian influence was probably sufficiently powerful and long continued to have produced

an Irano-Mongolian type, prior to the proper Arian era of Northern India. It is even probable that the Dravirian nations of the Ganges, like the more civilised ones of the south, were greatly modified by archaic Iranian influence before the Ultraindians entered the basin.

Although we have found it impossible to trace the actual history of the Dravirian formation, we have ascertained the main course of its development and various points of contact, at its successive stages, with other existing formations. The general conclusions may be recapitulated as follows:\*

1. The general character of its harmonic, aspirate and liquid phonology is Scythic, but it has peculiarities in its strong and complex sounds. Save in some of the emasculated tongues it has a more harsh and primitive character than the Scythic phonologies.

2. The structural phonology is agglomerative and harmonic. It separates the formation not only from the Chinese and Mon-Anam but from the Tibeto-Ultraindian, and allies it with all the harmonic formations. In its specific characters—a weakness of the agglutinative, elliptic and amalgamative power and consequent rarity of flexions—it is much nearer akin to Scythic than to the prevailing S. W. Asian and African formations and to the pre-Scythic S. European [Euskarian]. Its agglomerative power is similar to the Scythic, and is hence greater than Caucasian and Semitico-Libyan, but less than the Iranian, Zimbian and Malagasy and greatly inferior to the American. But in its archaic Australoid condition the formation was much more agglomerative, and consequently approached closer in phonetic structure to the great agglomerative alliance. In this respect as in the character of its elementary sound, and in the absence of the regular vocalic harmony that has been developed or diffused throughout the Scythic family it appears to associate itself with a proto-Scythic phonetic type.

3. The basis of the Dravirian vocabulary is monosyllabic. In this stage it is connected with the ultimate monosyllabic basis of all other languages, and by its pronominal roots, as well as many others, it specially connects itself with Chinese.

\* See Sec. 10 for review of the ideologic and phonetic affinities.

4. The actual form of the vocables is in general that of a root with definitives attached, usually postfixally but in some cases prefixally. In this stage it connects itself generally with all the existing harmonic languages; more closely with those formations in which the Scythic postfixing of definitives prevails to a greater or less extent although combined with prefixes, as in Caucasian, Indo-European, Semitico-Libyan, N.E. Asian, American and proto-Scythic; and specially and most closely with the Scythic formation itself in which this habit is predominant and almost excludes the prefixal. The postfixing of the pronoun possessively, and the attainment through this of the assertive form, are referable to the same idiom, and embrace a similar range of affinities. The South Dravirian group like the Indo-European formation has lost the primary universality of the habit, but, as in that formation, the postfixed pronouns and pronominal elements in assertives are a remnant of it. The Kol group in one class of words retains the idiom with substantives. The idiom is fully preserved in Scythic; in some American languages; in Semitico-Libyan with substantives and in most of the languages with assertives; in the Caucasian languages with substantives and in some with assertives; in Euskarian, as in some tenses of Libyan languages and in Indo-European, with definitives used as generic or absolute assertives only; in Malayu-Polynesian with substantives and in one group with assertives. The pronoun is prefixed in all or in some cases in certain of the Caucasian, Semitico-Libyan, Zimbian, Yeniseian and American languages (following the Chinese and Tibeto-Ultranian collocation). The postposing or postfixing of words used to denote the other generic relations of substantives and assertives is a further phenomenon referable to the same idiom, for all formatives whether used with assertives or substantives are ultimately reducible to definitives and substantives. In the general position of the formatives Draviro-Australian resembles Scythic, Indo-European, and Assetic generally; Semitic in its archaic directives, and Zimbian in its assertive formatives; while it differs from the Semitic assertive formatives which are prefixal and infixal or flexional and from the Zimbian directives and definitives which are prefixal. With the Euskarian and American systems it agrees more closely



than with the Caucaso-African. Hence the forms of the Dravido-Australian words, whether substantival or assertive, whether simply combining a concreted definitive with the root or clothing it with pronouns, directives or formatives, normally agree with the Scythic and proto-Iranian forms more completely than with those of any other family.

In its generally postpositional and inversive collocation, and several affinities in particles and idioms, it is Scythic, although other formations also possess several of these common characters. Thus the inversive tendency prevails to a large extent in the American languages, in archaic Iranian, in Euskarian, in Caucasian and in various degrees in the Semitico-Libyan and more especially in some of the Mid-African members of that alliance. The negative assertive is not only Scythic but Zimbian. The dual of the Kol and Australian groups and the double form of the 1st pronoun plural are very archaic and common idioms. But the general combination of traits, positive and negative, is much more akin to Scythic than to any other formation.

5. The principal idiomatic peculiarity when compared with Scythic, is the distinction of sex in the 3d pronoun and to a certain extent in the postfixed definitives of substantives,—an Indo-European and Semitico-Libyan trait.

6. In abstract and flexional development it has a wide range of affinities in its Australoid stage. In its Dravirian condition it takes its place with the more flexional Scythic languages. It is much more crude than Iranian in its historical development or than the more flexional Semitico-Libyan languages.

The peculiarities of Dravirian and Dravido-Australian, even when compared with those Asiatic families that most closely resemble it, are conclusive against the hypothesis that it was derived from any of these. The common characters are referable to a mother formation which diverged into distinct channels and received special modifications in each, these main streams in their turn divaricating, while the different branches or some of them from time to time overflowed and came into mutual contact. Dravirian probably passed through an Australoid condition, and it is even probable that in a still older race it was more agglome-

rative and pleonastic, richer in forms although cruder and less flexional. But it cannot have passed through an Iranian, a Semitic-Libyan, a Zimbrian, a Caucasian or even a proper Scythic condition. All the distinctive characters of these formations are referable either to individual development and modification since they were separated from the stock common to all, or to their separation having preceded that of Dravido-Australian from proto-Scythic. It is probable that the more distinctive characters of Scythic were acquired subsequently to the migration of the Dravido-Australian family to the southward. The full development of the vocalic harmony probably took place in a branch of the Scythic family that had not become predominant till after that migration. The connection of Dravido-Australian in the Scythic continued till the postpositional structure had been developed. Its radical connection with the other formations belongs to periods preceding that development.

7. Glossarially the Dravido-Australian affinities have a wide range. The pronouns, numerals and definitives are E. Asiatic and Scythic. Several particles are Scythic and several are not only Scythic but S. W. Asian and African. The pronouns are not the prevalent Scythic, and their Chinese and other affinities lead to the inference that the basis of Dravido-Australian was not a Scythic language, but a distinct one which was placed within the range of the proto-Scythic development and took a similar form. But the vocabulary although not purely Scythic in its basis, has in common with Scythic vocabularies a large proportion of roots and varieties of widely scattered Asiatic roots. Amongst the Mid and North Asiatic affinities the Samoiède, Yeniseian and Ugrian are more numerous and often more close than the proper Tatar or any others, save the Asonesian. The Mid-Asian affinities of the latter are equally striking and very numerous and embrace a multitude of vocables not now found in Indian vocabularies. The Dravido-Asonesian languages have also a considerable number of vocables in common with the E. Iranian, Caucasian and Indo-European tongues and with the more Scythoid of the African vocabularies. The affinities with the proper Semitic vocabularies are less numerous. The affinities in ultimate monosyllabic roots

embrace Chinese and Tibeto-Ultraindian vocabularies. The affinities with Semitic and African languages appear to be mainly indirect and referable to the common Mid-Asiatic element, but some are direct and imply an early and active commercial intercourse by the aid of the monsoons along the northern part of the Indian Ocean. The special affinities of the proper Dravirian with the Caucasian vocabularies are striking.

It is probable that the most numerous classes of glossarial affinities are connected in origin with the most striking phonetic and ideologic affinities. The most positive inference that we appear to be warranted in drawing is that the strongly Scythic character of Dravirian, and a large number of the Dravirian vocables, are referable to a variable Ugroid or proto-Scythic formation which early prevailed in Mid-Asia, and by successive ethnic movements diffused its form or extended its influence not only to the Caucasian, Iranian and Indian but to the East and Mid-African languages. The numerous and striking resemblances of Dravirian to East Iranian, East-African, Caucasian and Mid and North Asiatic, particularly Ugrian, Samoide and Yeniseian, vocables are best explained in this mode. As the Scythic tribes have always been the most nomadic, and the form of their languages is deeply impressed on Dravirian, it is reasonable to regard their movements as having been the common cause of these resemblances.

This enquiry, slight and superficial as it has been, may serve to show not only that the ethnic history of the earlier races and languages of India and Asonesia is intimately connected with that of other Asiatic formations, but that larger and more exhaustive explorations of the affinities of roots and vocables will certainly lead to many positive historical results. But the comparative glossology of the other languages of Asia and of the world must be prosecuted simultaneously, for it is clear that the history of every separate vocabulary becomes more and more implicated in that of others, and embraces a wider and wider circle of relationship the further our researches penetrate into antiquity.

As each successive formation of Irania becomes better defined,

a clearer light will be thrown on the later stages of the Dravirian. But much of its more fundamental history will continue to depend on the progress of universal comparative glossology. Although in phonology, ideology and glossary it is distinctly connected with the Scythic, and also in a less degree with the Caucasian and Africo-Semitic alliances, it has so large a mass of peculiarities as to prove that, since the eras in which that connection arose, the languages of Western Asia and probably of all Asia have undergone great changes. At one time Dravirian or Australian may have closely resembled languages of the Panjab, of Persia or of Upper Asia, but no ethnologist would expect to find such a resemblance now. From all the preceding indications we are warranted in concluding that ethnic movements similar to the historical ones, sometimes rapid, and at other times gradual, have in all eras been going on from S. W. Asia to India and from India to Ultraindia and Asonesia. These movements have always left glossarial traces of greater or less importance, and we may therefore hope that in the progress of ethnology each will be more or less clearly defined.

## CHAPTER VI.

ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE  
TIBETO-ULTRAINDIAN AND MON-ANAM FORMATIONS.

[*Introductory Note*—The conclusion that the Mon-Anam numerals as well as the pronouns are of North-East Dravirian origin (chap. v. sec. 11), affects the views previously advanced in these papers as to the ethnic position of the formation, and the Si-fan vocabularies of Mr Hodgson having now placed beyond all doubt the lines of connection between the Tibetoid languages of Ultra-india and India and the Tibetan and Scythic, it becomes necessary to alter the order in which I had treated of the Ultraindian languages in this part. Instead of having to ascertain the distinctive characters of the Ultraindo-Gangetic group by a prior approximative determination of those of the Mon-Anam, we can now proceed much more surely by reversing the order. The form and substance of the Burma-Gangetic branch when it entered Ultraindia being traced through its affinities with the existing languages of eastern and western Tibet, a well defined basis is obtained for the investigation of the original condition of the older Ultraindian languages. The surrounding and intrusive formations—Chinese, Tibetan (Si-fan, Bhotian), Dravirian and Arian—are all referable to foreign lands, and when the alien ingredients which the mixed languages of Ultraindia owe to these formations have been successively removed, we may hope to arrive at the native Mon-Anam residuum. The order I had adopted in considering the formations following the Dravirian was “B. the South Ultraindian or Mon-Anam; C. the Tibeto-Ultraindian or Burma-Himalayan; D. the Tibetan.” (vol. vi. p. 658.) The arrangement now adopted is—A. the Tibeto-Burman formation, I. The Tibetan branch embracing 1st the Si-fan languages and 2nd the Tibetan proper which it may now be preferable to term Bhotian; II. the Ultraindo-Gangetic branch; B. the Mon-Anam formation. As the Si-fan dialects have not hitherto been noticed, it becomes necessary to consider their characters so far as the materials supplied by Mr Hodgson allow. The sections relating to them are therefore to be received, in some of the details, as supplementary to sec. 2 of chap. iv.

To show how Mr Hodgson's Si-fan vocabularies affect the general inferences at which I had arrived, I may be allowed to refer to some of the earlier portions of this series of papers. In the 2nd section of that "on the ethnology of South-Eastern Asia" (vol. iv. for 1850, p. 464) the following remarks were made on the distribution of the Tibetan tribes.

"The western or inner division is chiefly occupied by the Tibetan tribes who possess the whole of the great trans-Himalayan depression which slopes westward to the margin of the Hindu-Khush, forming the transalpine basin of the Indus, and eastward to the unknown point where the basin of the Zangbo bends south and sends its waters into the basin of the Brahmaputra or of the Irawadi. They have even extended to the S. East and entered the upper part of the eastern basin of the Brahmaputra where they are in contact with the Mishmi. Tibetan tribes and others allied to them have spread over the basin of the Ganges, although they are now chiefly confined to the Himalayas, the Vindyas and the basin of the Brahmaputra. In the basin of the Brahmaputra they are blended with allied tribes of the Mayama family. Rude Tibetan tribes of nomadic predacious habits, known in Tibet chiefly under the generic name of Kham and in China under that of Si-fan, are spread over all Tibet to the northward of the depression of the Indus and Zangbo, and eastward along the greater part of the eastern margin of the inner division to a considerable distance within the boundaries of the Chinese Provinces.\* They probably come in contact with the inner tribes of the Brahmaputra and Irawadi basins, and are intermixed with the most westerly Chinese tribes and the Mongolian tribes who chiefly occupy the northern and N. E. portions of Tibet.

"The ethnology of the E. middle division is very obscure, and will probably prove to be of extraordinary interest. In a region of which a great portion is inaccessible from lofty mountains and snow, many of the inhabited districts must still be secluded. Numerous petty tribes must retain their ancient independence and their aboriginal languages and manners, and it is probable that

\* They are found to the west of the Yalong and probably in some places reach to the Yun-ling mountains.

amongst the former some will be found intermediate between the Chinese, the Burmese and the Tibetan. This region promises to be the richest for ethnological discoveries of any that yet remains unexplored in Asia, or perhaps in the world. All the S. E. Asian tribes appear to meet in it. On the south the upper division of Burmah and the Chinese province of Yun-nan are known to contain many rude tribes akin to the Burmese and the Lau and all or most of the Turanian races who now occupy the lower basins of the rivers which descend through this region must have been derived from it. The great provinces of Sze-chuen and Kan-suh are also known to contain rude tribes, and the languages of even the more civilised communities of the latter are peculiar.\* In the western parts of these provinces the Kham or Si-fan of Mongolian habits, and the true Mongol tribes of the Mongfan and Kukunor Tartars meet the Chinese tribes. In the S. the Mongfan are in contact with the most northerly tribe of the Irawadi basin, the Khanung. The civilised Chinese have pushed themselves into all the more open and fertile portions of the western Provinces. It is through the Province of Kan-suh that the great trading route lies which connects China with Western Asia, and the movements along which must in all eras have affected the distribution of the tribes of middle Asia."

In the Introductory paper (vol. iv. p. 441) and in the earlier chapters of this Part the terms Tibeto-Ultraindian and Tibeto-Indian are used as descriptive of these Ultraindian and Indian languages that are allied to Tibetan, but distinct from the derivative Tibetan dialects of the Himalayas. In the Introductory paper I remarked that the languages in question had distinctive features when compared with Tibetan, and that the Tibeto-Indian tribes were directly connected not with the Tibetans but with "a proto-Tibetan era when the present widely spread Tibetan race may have only been one of several rude trans-Himalayan tribes speaking dialects of an incipient Tibetan character or even of one nearer the Chinese." The proto-Burmans, it was remarked, "probably occupied some portion of the country on the bounda-

\* According to Chinese writers some of the eastern Tibetan dialects approximate to the Chinese.

ries of China and Tibet. Many other intermediate languages may have existed and some are probably still preserved." In the earlier chapters of this Part the line between the Ultraindo-Gangetic languages and the Tibetan was more broadly and distinctly defined. In chap. I. the former was marked out in the following passage. "The next Ultraindian formation was the Tibeto-Ultraindian which is distinguished from the Mon-Anam by its Tibetan or post-positional and inversive character. It embraces the Burman, the Karen, the Yuma dialects from Kyen to Kuki, the Manipuri, Naga, Mikir, Singpho, Mishmi and Abor-Miri. It also spread westward up the Gangetic basin and into that of the Sutlej; the Garo, Bodo, Dhimal, the Akha, Changlo and the other Himalayan languages, as far westward as the Milchanang and Tibberkad, belonging to this formation so far as they are not Dravirian, Tibetan or Arian, and so far as they do not preserve remnants of the Mon-Anam formation, the latter being slight on the north side of the Gangetic valley compared with the south or Vindyan. This Tibeto-Ultraindian formation I conceive must have originated at a very ancient period in eastern Tibet or the adjacent territory now Chinese, because it is intermediate between Chinese and Tibetan and more closely connected with the latter than the former."

The Si-fan vocabularies which we owe to Mr. Hodgson have partially removed the veil which hung over eastern Tibet, and my anticipation that the ethnology of this region when explored would prove to be of extraordinary interest, has been verified. Much remains to be ascertained before we can enter on a full investigation of the relation of the Si-fan dialects to the Tibetan and Ultraindian, but enough has been published to satisfy us of the important fact that the Ultraindo-Gangetic languages are more closely connected with the Si-fan than with the proper Tibetan dialects. It will now be convenient to distinguish the latter by the national name of Bhot and to use Tibetan as including both Bhotian and Si-fan tribes and languages. The term Tibeto-Ultraindian or Tibeto-Burman may be applied to the whole family—Tibetan, Ultraindian and Gangetic—and Ultraindo-Gangetic to the southern branch, excluding the southern Bhotians.



I have not thought it necessary to rewrite the whole of this chapter. We may expect further information from Mr. Hodgson respecting the Gangetic and Si-fan languages, and with the present materials, it would still have remained fragmentary whatever shape had been given to it. It will be understood therefore that much of the chapter remains as it stood before I received the Si-fan vocabularies, but wherever it appeared advisable in order to save repetition I have embodied the new data. In other cases the additions constitute separate sections or paragraphs. No great inconvenience can arise from the Bhotian and Si-fan branches being to some extent separately treated. There are indeed reasons in favour of such an arrangement. Bhotian is the only Tibetan dialect that has been investigated in detail and its influence on the Ultraindo-Gangetic languages is to a certain extent distinct from that of the Si-fan dialects.]

## I. THE TIBETO-BURMAN FORMATION.

### *Sec. 1. THE GENERAL CHARACTERS OF BHOTIAN, AND ITS RELATION TO CHINESE AND SCYTHIC.*

The phonetic and ideologic relation of the Bhotian to the Gangetico-Ultraiidian languages in general, and to the Burman in particular, as that of which the grammar is best known, has been already considered. The result of our enquiries may be stated to have been that this relation is of two very different kinds and belongs to widely separated eras. A formation intermediate between the Chinese and the Bhotian, and, it may be added, having some Scythic affinities of its own, spread into Upper Ultraiidia at a remote period, its native seat having been in all probability the adjacent province to the northward comprising eastern Tibet and a portion of N. W. China. Of this formation the Burman branch of the Ultraiidian languages is the best known representative. But it is a comparatively recent or much modified form. The older form was less emasculated, its vowels were broader, and it used prefixes which gave it a dissyllabic rather than a monosyllabic form. The archaic formation spread down the Irawadi and is now best represented by the Naga, Manipuri and Yuma dialects. This form of Tibeto-Burman appears to have preceded the Burman even in the valley of the Irawadi; and the

other dialects of the same group retain its phonology more tenaciously than Burman. It also spread to the westward from the Asam valley to the head of the Satlej, all the Gangetic band of Tibeto-Ultraindian dialects from Mishmi to Milchanang adhering to it to a great extent. This form has itself several phases. The earliest appears to have been broad, sonant and in its finals consonantal. The later show various degrees of vocalicism, the final consonants being softened or elided. In all the groups, and in some cases even in local subdivisions of the same dialect, the broad and strong phonology still co-exists to a greater or less extent with the soft and slender. The current and the old or written Bhotian (chap. iv. Sec. 1.), the different Abor dialects (*ib.* sec. 5), Burman when compared with Karen, Karen when compared with Khyeng and the other Yuma dialects, Gyarung when compared with Thochu or Bhotian, all illustrate the progressive emasculation of the phonology, and in most of the dialects archaic broad vocables are current along with slender ones. In the Gyarung-Burman or Eastern Tibet and Irawadi band the attenuation is most marked. In the Burman phonology the propensity to ellipsis, slender vowels and consonants,—as *i* for *a*, *e* for *i*, *t* for *k*, *y* for *r*—has received a peculiar development. This latest form is found most strongly marked in Burman itself which has become highly monosyllabic and attenuated. In Karen and some of the other members of the proper Irawadi group the older form is more persistent.

The history of the direct and exclusive Bhotian influence to the southward of the snows is quite distinct. It began by the migration of Bhotians across the Himalayan passes, the occupation of Bhutan, the partial occupation of more western districts, and the diffusion of Bhotian political and ethnic influence not only over the prior Himalayan tribes but partially also over those of the Gangetic plain and North Ultraindia. The Bhotian language was transported to this side of the snows. It partially communicated its forms to the Himalayan languages from Milchanang to Abor-Miri, and in a slighter degree to the Middle Gangetic (Dhimal, Bodo) and some of the North Ultraindian (Garó, Mikir, Naga &c.) It thus appears that the proper Bhotian influence on

the Indian and Ultraindian phonologies and ideologies was considerable. It remains to enquire into the extent of its glossarial influence. The connection between the tribes and languages of Tibet and those of India, Ultraindia and Asonesia, appears also to render a brief enquiry into the trans-Himalayan relations of the Tibetan necessary for a satisfactory view of the ethnology of the Indo-Pacific islands. I shall proceed to this, in the first place.

The cis-Himalayan Tibetoid languages have distinct affinities with those of the Tatar and more northern hordes of Asia. There has evidently been more than one southern movement of the Tibetans in different eras. Tibet has always been exposed to the incursions of the nomadic Tatars, who have, in turn, spread themselves over the steppes between southern Tibet and the great Desert. The relations of Bhotian, in its present form, to the more northern languages, may therefore throw some light on the prehistoric changes which it suffered, and connect the Scythic revolutions in which they originated, with the ethnology of the provinces to the south of the Himalayas.

In preceding chapters it was remarked that Bhotian was so highly Scythic in its ideology that it might be considered as a non-harmonic member of the Scythic family. The phonology preserves a crude or Chinese character almost to the same extent as the Burman. The earlier form of Burman appears to have been harsh and sonant like the purer Bhotian and both are essentially monosyllabic and non-harmonic. In this respect they depart greatly from the Scythic phonology and especially from its more agglutinative varieties. But the basis of even the Ugro-Japanese languages is monosyllabic with very little disguise, and many of them preserve a strong sonant and aspirate tendency. It is probable therefore that at the remote period when the Ugrian formation first modified the earlier and more Chinese form of Tibeto-Burman, the former was equally sonant with the purer Tibetan. In the Ostiak and even in the Turkish vocabularies words frequently occur entirely Bhotian in character. Some of these are found little changed in Bhotian. For example the Ostiak *log-ol*, "*hand*", is evidently the parent of the Bhotian *lag*, the Turkish having the slender form *r-lik*. The Turkish *syod*

"*light*," preserves the original of the Bhotian *hod* in the same sonant form. Ugrian and Turkish retain sonant forms of an ancient root for "*river*," which has become softened in the prevalent Tatar, Tibetan, Ultraindian and Asonesian glossologies (Comp. Ugr. *jug-an*, Turk. *sug*, Turk., Mong. *u-sun*, *chun*, Tibeto-Indonesian *chang*, *sung* &c.) The Ugrian *log*, "*horse*", (also *lo*) is more sonant than the derivative Himalayo-Burman and Indonesian forms *rang*, *ra* &c. In the less emasculated Indo-European vocabularies, the sonant forms of the ancient Turanian roots are frequently retained. There can be no doubt that the Chinese and Chino-Ultraindian or Mon-Anam formation was also originally highly sonant, but the strong glossarial affinity of Bhotian to the Ugrian alliance renders it clear that the sonant character of Bhotian was immediately related not only to the archaic Chinese but to the Scythic, and through it, to the archaic Indo-European. It has a greater range of final consonants even than the most consonantal and sonant of the known Chinese dialects, the central and southern. At the period when the Tonic Dictionaries were compiled—the 6th or 7th centuries of the Christian era—the phonology of the Kiang provinces was more emasculated than the written Bhotian. The latter probably preserved an example of very archaic Chinese phonologies, anterior it may be to the development of the harmonic phonology and when the mother dialects of Scythic, Indo-European and all of other formations consisted of crude, monosyllabic and tonic roots\*.

The Bhotian phonology is much cruder and more archaic than the Scythic or that of any of the other harmonic formations. When the formation separated from the common stock the latter was little in advance of the Chinese, monosyllables and homophons abounded, agglutination was feeble or only beginning to affect the form of vocables, the definitives and other particles were not concreted with substantial words or with each other. The Bhotian phonology contrasts so strongly with the highly harmonic Scythic, that

\* Since chap. III. was published the Rev. Mr Edgkin in his Grammar of the Shanghai dialect has shown that the sonant tendencies of some of the middle and southern languages are more decided than previous Grammars had led us to believe. In a subsequent section the results of Mr Edgkin's original and important enquiries into the phonologies of the Chinese dialects will be noticed.

it may even be considered doubtful whether the harmonic development had commenced when the mother-dialect of the former was first separated from the proper Chinese. Much of its slight agglutinative and harmonic power has probably been acquired since, and Scythic may have had much influence on its progress. In another place the conclusion was arrived at that the collocation of Scythic was older than its harmonic phonology, and in Bhotian we have a partial example of its pre-harmonic condition.

Its general structure although Scythic when compared with Chinese, Mon-Anam, Asonesian, Semitico-African and Caucasian, is not purely Scythic.

The use of postfixed definitives is an archaic Turanian, Caucasian, Semitico-Libyan and Indo-European trait. The most common Tibetan postfix\* *ma*, *pa*, *va*, *ba*, &c occurs frequently in Ugrian vocabularies, and it is also Semitico-Libyan, Caucasian, Indo-European and Dravirian. In Chinese it is a 3rd pron. The postfixes distinguish Bhotian strongly from Chinese and there can be no hesitation in considering them as of Ugrian affinity. The other Turanian postfixed definitives are *na*, *ni*, *n*, *ŋc*; *ra*, *la*, *ol*, *el*, *er*, *ŋc*; *ka*, *ga*, *k*, *ŋc*; *s*, *z*, *t*, *d*, *ch*, *j*; which with the labials comprise the whole range of the Tibetan.

The prefixed consonants of Tibetan *b* or *v*, *m*; *h*, *s*, *z*; *l*, *r*, *d*; *g* are not prevalent in the Turanian languages, but Hungarian has *az*, as a separate preposed definitive, and in others vocalic prefixes occur which are probably in many cases contractions. Turkish appears to have prefixual *t*, *d*, *ch*; *l*, *s* concreted. The Yeniseian languages will probably prove to be the chief existing link between the proper Scythic and the N. E. Asian and American. In many respects they may be considered as entering with the Samoiedean group into the Ugrian family. But with strong Ugrian affinities they combine independent traits, and others that are N. E. Asian and American. Amongst the latter is the retention of prefixed, along with postfixed definitives, embracing the entire

\* I give a few examples in which both the root and the postfix are the same in the two families.

*Leaf*, Bhot. *loma*, Mordv. *lopa*;

*Finger*, Bhot. *sormo*, Fin *sormi*;

*Rain*, Bhot. *charba*, Sam. *serwo*.

Scythic and Bhotian range,—ma, pa, pi, bi, &c; ta, da, di, d &c; si, hi, chi, cho &c; al, il, ol, &c; ki, ke, ku, gi, yi, &c; a, u, o, i, e. These definitives are more common as prefixes than as postfixes, and when the habit of the formations which succeed Scythic on the N. E.\* and S. W. and have fundamental affinities with it, is considered, no doubt can remain that the distinctively postfixal idiom of Scythic was exceptional in its origin, and was preceded by a condition of the mother-language in which the definitives were current as separate particles, and capable of being preposed as well as postposed according to dialectic taste and fashion. To this proto-Scythic stage of the Mid-Asian formations Bhotian, like Yeniseian, partially adheres. In this respect their form is older than the proper Scythic and more akin to the basis-form of the Caucasian, Semitico-African and other formations that separated from the common stock before the dialect in which Scythic originated had acquired its peculiar postpositional structure. In the use of prefixed definitives as in many other traits the Tibeto-Ultranindian and N. E. Asian families have departed less than the Scythic from the archaic type preserved by Chinese. In Chinese the true definitives precede the words they define†. The full range is also preserved in Chinese, although the definitives are now rarely used save emphatically or as demonstratives. It has ki, ke, chi, che, ti, i, ku, tsze, hi, ho &c; na; and pe, wa. Chinese also uses double demonstratives, or rather the demonstratives followed by the generic definitive or segregative ko, ku,—na ko, che ko, ti ku, i ku, ku ku. In the first stage of an adhesive phonology these would become nako, cheko, tiku, iku, kuku. They are thus the prototypes of the double definitives, prefixes and postfixes found in most of the harmonic formations.

It is obvious that the full forms of the definitives, as in Chinese, must have preceded that in which they lose the vowel and coalesce with the root into one monosyllable. The Bhotian initial consonants were originally separate preposed definitives and they are preserved in the full form as prefixes in other dialects of the

\* The Aino-Kurilian group has prefixes as well as postfixes—ma, pu, p, f; t, d; so, sa, sha, sh, si, i; no, on, &c; ku, g &c. Yukahiri has also prefixes, but its general habit is postfixal like Scythic.

† The Gyarung prefix ki- is the Chinese definitive ki, ke, chi, che. Hence we find coincidences such as *kitan* Ggyar., *chi tun* Gyami, *egg*. Kwan-hwa has the Gyarung vowel tan.

Tibeto-Ultra-Indian family. In the N. E. Asian, Caucasian, Semitic-African and Asonesian provinces both forms of the prefixes are also found.

In Tibetan the labial definitives are still current in their primary character of substantive words "*father*", "*mother*". As a definitive postfix *-pa*, *-po* has acquired a generic masculine application, and *-ma*, *-mo* a feminine, and they are even extended to neuter names. In Scythic both the primary and the sexual significations have been lost. In Dravido-Australian, Indo-European and Semitico-Libyan agglutinated definitives are found retaining a sexual force but with the primary substantial meaning lost. Tibetan here also stands between Chinese and the more agglutinated and concreted formations. In Chinese there are several classes of postposed sexual particles, as in Tibeto-Ultra-Indian and Dravirian. Thus for human beings Kwan-hwa has *nan masc.*, *neu fem.*; for the lower animals generally *kung m.*, *mu f.*; for birds *heung m.*, *tsze f.* As in Bhotian, Indo-European and Semitico-Libyan the idea of gender has been transferred to inanimate things, for which *keén m.*, *kwǎn f.* and *yin m.*, *yang f.* are used. In some of the Scythic languages there are traces of a similar attribution of a distinction of sex, energy &c to inanimate objects.

A marked departure not only from the Scythico-Dravirian but from the Chinese collocation occurs in the position of the qualitative, which follows the substantive. This idiom connects Tibeto-Ultra-Indian with the adjacent Mon-Anam. It is clearly abnormal, because the primary relation of possession and attribution, of which the qualitative is but a variety, is denoted in the Tibeto-Ultra-Indian languages, as in Chinese and Scythic, by preposing the possessive. Consistently also with the normal structure the adverb precedes the qualitative or verb, and the subject the predicate.

The Bhotian glossary is highly Scythic but in its basis it is independent to a considerable extent and with strong Chinese affinities. The Scythic glossarial basis, in pronouns and many particles and formatives, is so uniform that it may be referred to one mother-dialect. The Bhotian basis is not a modification of this dialect like that of all the Scythic languages. It is a distinct Chino-Scythic sub-formation, and Chinese more than Scythic.

Sec. 2. THE GENERAL CHARACTERS OF THE SI-FAN LANGUAGES AND  
THEIR RELATION TO BHOTIAN.

Since this paper was written Mr Hodgson has published a series of vocabularies spoken by the tribes occupying the mountainous country between the land of the proper Tibetans or Bhot and that of the proper Chinese. These vocabularies are of remarkable interest. They prove that the Tibeto-Ultraindian formation extends northward, from the most northerly dialects previously included in it [Singpho, Jili] to a point in N. E. Tibet which has not yet been ascertained, but where they appear to be succeeded by Sok or Mongolian tribes identified by Mr Hodgson as the Olet and Kalmak of Remusat and Klaproth. These Mongolians occupy the eastern portion of northern Tibet, the western being in like manner the southern extremity in this quarter of the Turkish province and traversed by tribes called by the Tibetans Hor and considered by Mr Hodgson to be Turkish. These Tatars chiefly roam on the north of the Nyenchhen-thangla range but there are also numerous scattered Horpa and Sokpa in southern Tibet. The new series of Tibeto-Ultraindian vocabularies comprises, 1st the Takpa (of the so-called Towang-Raj west of Kwombo), 2nd the Manyak,\* Gyarung† and Thochu spoken by tribes which occur in this order, between Yunan and Amdo, the latter division of Tibet being occupied by a Si-fan tribe who for the most part speak Bhotian. To these are added the Gyami, a dialect of Chinese, and the Sokpa and Horpa. The last is considered by Mr Hodgson as Turkish, but it appears to be Tibeto-Ultraindian in phonology and glossary. It is a very archaic dialect of Chino-Tibetan, preserving some evidently archaic varieties of the common root now obsolete in Chinese, in its forms intermediate between Bhotian and the East Tibetan dialects but leaning more to the latter than the former, and possessing special affinities with current Chinese and Tatar, from which it may be inferred that Horpa has not only been long conterminous with Scythic languages, but that it was in contact with Si-fan dialects and like the southern Takpa directly acted on by Chinese before the modern expansion of Bhotian to the eastward.

\* Mr Hodgson describes the physical characters of a Manyak, a native of Rakho, *six days south of Tachindo*.

† Mr Hodgson describes a Gyarung from Tazar, north of Tachindo.



The most important conclusion to be drawn from these vocabularies is that three at least of the Tibeto-Ultraindian ones, the Manyak, Gyarung and Takpa, are allied to the Irawadi or Ultraindian branch of the family more than to the Bhotian. The general structure and phonetic form of the vocables resemble those of the Ultraindian vocabularies that have been least modified and emasculated by the influence of vocalic Chinese, and especially those of the Naga-Manipuri group. Manyak and Gyarung however have also Burman forms.

Gyarung, Horpa and Thochu have a considerable portion of final consonants. Manyak is vocalic in this respect, in its slender vowels and in the forms of several of its words resembling the emasculated Burman sub-formation.

Slender vowels (*i, e*) are more common in all the dialects than in Bhotian. They abound in Manyak and Gyarung, especially in the latter, which is more slender, but less elliptic than the former. Thochu and Horpa, especially the latter, have more frequently broad vowels as in Bhotian. But it is to be remarked that a special connection exists between Horpa and Thochu and between both and Manyak. The glossarial affinity between Thochu and Manyak in particular is often very decided. The common varieties have often *a* as the vowel where the other Tibetan or Chino-Tibetan varieties of the same root have *o, u, i, &c.*

I give a few examples of the great attenuation some of the Tibeto-Ultraindian vocables undergo in Manyak "I," *a* (nga Gyarung); "arrow" *m-a* (*m-la* Takpa); "bird" *ha*, (*bhya* Lhop.); "boat" *g-u* (*g-ru* Takpa, Bhot.); "village" *hu* (*khyu* Gyar.); "ripe" *de-mi* (*min* Thochu, *ka-s-man* Gyar.); "black" *da-na* (*ka-nak* Gyar., *nya-nya* Horp.). The vowel generally retains an archaic broad form.

The broad phonology appears to have predominated in archaic eras. Some of the remote Scythic and N. E. Asian languages still affect broad vowels. The Scythic languages vary amongst themselves in this respect, but in many there is now a disposition to slender vowels. The Turkish dialects frequently affect them. In the modern Chinese they are common, and the strong development of this tendency and of general emasculation in the Tibeto-Ultraindian languages, and especially in the eastern

or Gyarung-Burman band, is chiefly ascribable to the predominance and diffusion of the modern North Chinese or Kwan-hwa phonology. But the slender forms of the Sifan-Burman vocabularies are not always to be considered as the result of a native development of a soft phonology under the influence of Kwan-hwa. On the contrary, many slender varieties are of the highest antiquity in all the East Asian formations,—Chinese, Scythic and Tibeto-Ultraindian. They are even preserved with the archaic final consonants in many words. The co-existence of broad and slender forms, e. g. log, lik “hand,” is in accordance with the unstable character of the vowel in the Scythic phonology. This vocable affords an illustration of the independent development of slender forms in the Scythic and in the Tibeto-Ultraindian provinces. The broad archaic form was common to both, e. g. log-*ol* Ostiak, lag-*pa* Bhot., *e*-lag Abor, luch-led “finger,” Kamschatkan. The Abor *e*-lag, *a*-lak has the Turkish prefix, but in Turkish the slender phonology has produced the forms *i*-lik, *a*-li, *e*-li, while the archaic broad vowels are preserved in *a*-la, *a*-lo. In Bhotian &c the *g* has also become *k*, lak-*pa*, and the emasculated Burman has not only evolved a slender vowel but changed *k* to *t*, lat, let. In this case the Burman let and Turkish lik are obviously independent. But there are other cases in which archaic slender Scythic forms have spread not only through the Tibeto-Ultraindian but through the Asonesian provinces. For example, the Gyarung-Burman li “air,” Asonesian iri &c is clearly archaic and Scythic, lil, il &c (as well as Caucasian, Semitic &c) and not a modern variation of the Bhotian lung, lhak &c.

Even Thochu and Horpa have several vocables with slender vowels where Bhotian has broad ones. Ex. *Hog*, phak Bhot., pi Thochu; *Earth*, sa B., zi-*p* T.; *Road*, lam B., rah Manyak, *g*-rih T., tri Gyarung; *Salt*, chha B., cheh T.; *Snake*, sbrul B., brigi T.; *Bone*, ruspa, ruha B., ripat T., rera Horpa.

Gyarung has often *e* where Bhotian has *o*, *u*, *a*, or *i*; *i* where Bhotian has *u* or *e*; and sometimes *o* where Bhotian has *a*. Ex. *Bird*, byu B., pye G.; *Day*, nyi B., nye G.; *Ear*, na B., ne G.; *Moon*, la B., lleh G.; *Water*, chhu B., chi G.; *Tooth*, so B., syo Horpa, swe G., Thochu; *Mouth*, kha B., khe G. Gyarung is equally prefixual with the more prefixual vocabularies of N.

Ultraindia, the common prefixed definitive being *ta-*, varied to *to-*, *ti-*, *tir-*, *tar-*, [as in some Ultraindian and Himalayan vocables], *da-*, *na-*, and also passing into *ka-*, as in many Ultraindian vocabularies. Qualitives take *ka-*, corresponding with the Bodo *ga-*.

Manyak has fewer prefixes than Gyarung and they are more mixed. The labial which is rare in Gyarung occurs frequently under the forms *ma-*, *m-*, *ba-*, *mer-*, *wo-*, and postfixually in the forms *-bi*, *-mi* (the Bodo prefix *b* in *be*). *De-*, *da-* is common with qualitives, corresponding with the Chinese possessive *ti*, *di*.

Thochu words have much more frequently a Bhotian form. The prefixes which are comparatively infrequent occur both in the Gyarung and Ultraindian vocalised form and in the Bhotian consonantal one, *mo-*; *ki-*, *cha-*, *ra-*, *da-*; *cha-*, *ki-*, *r-*, *s-*, *g-*, *k-*. Some words have also the Bhotian postfixed labial definitive (*-mo*, *-pa*, *-wo*, &c.) The numerals take *-ri*, *-re*, the Scythico-Tibetan poss.

Horpa has also prefixes and they are generally in the consonantal Bhotian form *s-*, *l-*, *r-*, *k-*, *v-*. Qualitives have frequently *ka-* &c, and assertives *ta-*, *tan-*, *tam-*, *ta-r*, *kha-*, *gu-*, *gu-r-*, *na-*, *na-ha-*, *na-p-*, *ya-*, *rha-*, *rhang-*, *zu-*, *zu-r-*, *wa-*, *wa-n-*, &c as in Gyarung, Thochu and Bhotian.

The use of prefixes in languages so far north as Gyarung, Thochu and Horpa renders it probable that this habit also characterised the eastern and southern branch of Tibeto-Ultraindian in its primary form, thus confirming the opinion expressed in chap. iv. (Journ. Ind. Arch. vii, 126) that the system of prefixed and proposed definitives was the original one of the whole Chino-Tibetan linguistic province, as of a much wider area, and probably also the earliest in the world.

In harmonic power the Gyarung appears to be somewhat in advance of Bhotian, but this may arise from the curt and consonantal phonology of the latter having obscured the vowel changes. In agglutination they are probably nearly alike. In Gyarung the vowel of the definitive appears to be affected by that of the principal word as much as in the closely connected Dhimal and Bodo (see chap. iv. sec. 3). Hence the superiority in this respect of these Gangetic dialects over most of the Ultraindian can no

longer be exclusively ascribed to the influence of the Dravirian phonology. In Gyarung it must be considered as an acquired Scythic trait and in Bodo and Dhimal it must be Scythic through Tibetan so far as it is Tibetan. Mr Hodgson gives we-pe "his father," wo-mo "his mother" &c. In like manner the vowel of the root is modified by that of a postfix.

Mr Hodgson gives a few examples of the formative system of Gyarung. The formatives are prefixual as well as postfixual and they are to some extent combinable, as in Bhotian on the one side and Burman on the other. From these examples it may be gathered that the common definitive prefix *ka*, *ta*, *da*, *na*, or *ya* is, when the sense requires it, assertive (present) or generic. In the sonant Bhotian the definitives *g*- [= *k*-], *d*- [= *t*-], which I have considered as identical with the localitive *na*, *la*, *ra*, &c (Journ. Ind. Arch. vii, 113), *m*-, *h*- &c, are all assertive, with a variable tense power. In Gyarung the repetition or addition of *ta* (*ka*-, *ta*-, *ta*-, *ta*- &c,) distinguishes the past from the present. In the negative assertive *ka*-, *ta*- &c is replaced by *ma*-, corresponding with the Bhotian *mi*-; Chinese *m* &c. *Sa*, postfixed to the common assertive definitive, renders it causative. It is the Bhotian instrumental, active, intensive and causative particle *s*, which in that language is postfixed to the root. But it is also postfixed to the definitive *la*, *na* &c to form the ex-transitive. In Gyarung *-si*, *-ti* is personative and participial.

The use of double and even triple definitives is common to Gyarung with most languages which retain such particles. The power of combining them and of using both prefixes and postfixes with the same root is Tibetan-Ultraiindian, N. E. Asian, American, Caucasian, Euskarian, Semitico-African, Asonesian and archaic Indo-European, that is, it is common to all the formative alliances.

From the proximity of Gyarung to the Chinese and Chino-Ultraiindian province it will probably prove to be more prefixual or less Scythic than Bhotian. But without even excepting the prefixual position of the qualitative (possessive) definitive *ka*- (in Bhotian *-kyi* &c, Changlo-*ga*), the examples hitherto given have parallels in Bhotian. In Chinese itself the poss. and qualitative particle is postposed, and although Gyarung generally dispenses

with declensional signs, as Chinese does when they can be avoided, it preserves the Chinese and Bhotian idiom when it uses a possessive particle, as in Lama um boroh, "*the Lama's horse*." That Bhotian also used the qualitative and poss. definitive prefixally is proved by several examples amongst the numerals and qualitatives. Thus *gchig* 1, *gnyis* 2, *gsum* 3, correspond with the Gyarung *kati* 1, *hanes* 2, *kasam* 3. When the qualitative prefixes of Bhotian do not agree with the Gyarung *ka-* they are sometimes similar to the Manyak and Dhimal *di-* &c, or to other Tibeto-Ultradian forms. The Gyarung verbs like the Chinese and Bhotian are simply substantives or crudes and the particles of tense, mood &c stand ideologically on the same footing as the definitive and directive particles. In Chinese some of these are preposed and some postposed. In Bhotian the definitive *d-* or *da-* is used as a generic assertive, while with some words it is future or aorist (past and future). *B-* or *ba-* is generic, past or aorist. *M-* or *ma-* is commonly generic, but with some words it is aorist exclusively. *H-* or *ha-* is generally present, but sometimes present and future. In Gyarung the prefixal definitives are more fully preserved and freely used than in the old or written Bhotian. But their redundant cumulation is not peculiar to the verb, as substantives and qualitatives occur with double and triple prefixes (Hodgson, 134). In the ordinary possessive use of the pronouns they are preposed, in accordance with the regular idiom of Chinese, Bhotian, Scythic and Dravirian, and not postfixed as in the abnormal or secondary and euphonic pronominal habit of most of the Scythic and Dravirian languages. Ex. *nga-pe* "*my father*"; *na-pe*, "*thy father*"; *wa-pe*, "*his father*". The same idiom is followed with assertives. *Nanre na-syo*, *thou ridest*. It does not appear that the pronoun is always thus preposed in its separate form as well as prefixed in its radical form. The assertive idiom is obviously the simple possessive *na-syo*, *my-riding*. In the first person the assertive or attributive root takes a postfix *-ang*. Mr Hodgson appears to consider it as representing the 1st pronoun, and generally indicating a reflexive character. To this he attributes its employment in the poss. case and its so frequently designating the first person when appended to verbs and their

participals (p. 66). In some of the other languages to which Mr Hodgson refers, it appears to me to be not a distinct reflexive particle representing the 1st pronoun, but merely a variety of the 1st pronoun itself, which is the same nasal root in Chinese, Tibeto-Ultraiidian and Dravido-Australian. In the Naga *thien-ang*, *thien-o*, *thien-a*, *I put*, *thou puttest*, *he puts*, *ang* is as evidently the 1st pronoun *nga* in a postfixed euphonic form, as *o* is the 2nd and *a* the 3rd. In Bodo *ang* is the separate form (see other examples *ante*, p.p. 37,38). It would therefore seem that in such Gyarung uses as *kazang* [= *ka zo* + *ang*] "I eat" (radically "the-eating-my"), *-ang* is identical with the Naga *-ang*, that is, the 1st pronoun itself. Gyarung may have lost the postfixed pronoun in the 2nd and 3rd persons. That it once possessed them and that they were emphatic repetitions of the preposed pronouns is rendered highly probable by the existing usage of the closely related Dhimal which retains them in the 1st and 2nd persons, but wants them in the 3rd. Bodo again wants them in all the persons while Namsangya Naga preserves them in all.\* The usage in Gyarung must be of Scythic origin like the other Scythic traits which the Tibetan formation acquired from its contact with Scythic in its native province and retained in variable degrees in its Ultraiidian dialects.

A few examples will serve to illustrate the Gyarung system of composition. From the crude root *zo*, *eat*, (or rather *eating*) are formed with the prefixed definitives *ta-*, *da-*, *ka-*, *ya-*, *na-* the substantive or participial *ta-zo*, *ka-zo* &c. From *ka-zo*, by the postfixing of *nga* in its euphonic form is obtained *kaz-ang*, *my eating*, [primarily doubtless *nga ka-zo nga*, like the Dhimal *ka hade khi-*

\* At the conclusion of chap. iv. I remarked with reference to the emphatic and euphonic postfixing of the pronoun. "It is not a trait that we should expect to find spontaneously shewing itself in many languages, and it is more likely to have been derived by the Gangetico-Ultraiidian tongues from a highly harmonic group like the Dravirian or Fino-Japanese, than to have originated close to the monosyllabic boundaries in such a language as the Naga, and been thence transmitted to more remote and harmonic members of the postpositional alliance." I added that if the trait were a native Indian one it probably arose in the Dravirian family and was communicated by it to the Gangetico-Ultraiidian. It may now be considered that this habit, with much of the harmonic and agglutinative tendency which I had attributed to Dravirian influences, was imported by the Gangetico-Ultraiidian family from its native location in Eastern Tibet, where it was adopted from Scythic.

ka and the analogous Scythic forms]. With *-ti* or *-si*, which Mr Hodgson terms "the participial attributive suffix" and which is evidently the common definitive demonstrative &c, found in the same form as a prefix and occurring in *chi-di* "this," *ha-di* "that"\* (*Bhotia vr. ha-de, de, sp. di, phi-di*), the compound becomes definitive or substantival *ka-zang-ti* "the I eating," "I who eat," "I the eater." With the causative particle *sa* prefixed to *zo* it becomes *sa-zo* or definitively *ta-sa-zo* "feeding," *ta-sa-zang-ti* "I who feed;" and with the negative definitive *ma-sa-zang-ti* "I who feed not." *Ta-sa-ze-si* according to the context is "he (or thou) who feedest," the pronoun not being postfixed. From the root *ma* or *man*, *sleep* (*nan* in Thochu) are formed *ka-r-man* "sleep," *ka-r-ma-ng* "I sleep," *ma-r-ma-ng* "I sleep not." The repetition of the definitive in the form *ta* forming the past or completive we obtain *ha-ta-r-ma-ng* or *ta-ta-r-ma-ng* "I slept," *ma-ta-r-ma-ng* "I slept not," *ta-ta-r-ma-ng-ti* "I who slept," *ma-ta-r-ma-ng-ti*, "I who slept not," *ta-ta-r-me-ti*, *ma-ta-r-me-ti* "thou (or he) who slept" or "slept not." As an example of the cumulative definitive prefix I may give *da-na-r-sa-gyu-ng-ti* "I who cause to run," i. e. *gyuk run*, or *running*, *sa-gyuk*, *make-running*, *da-na-ra-sa-gyuk* (triple def.) emphatic "the," "this," "am," making-running, *ng-ti*, "I-who" or "I-the."

The following additional example shews that in Gyarung as in Bhotian the object precedes the assertive. *Ngare nga-pe boroh dovo-ng*, "I my-father horse give-I."

The pronoun when used objectively in the imperative has the same form as when used agentively in the indicative, *davo-ng* "I give" or "give me." (Hodgson 66).

Horpa has also the postfixed 1st pron. in the same objective form *tu-khye* "give" *tu-kh-ong* "give-me." Thochu prefixes the pronoun *da-goh* "give," *kwu-goh* "give me."

Save in those points in which the Scythic inversive collocation departs from the Chinese there are few traits in Gyarung or in Bhotian which may not be considered as fundamentally Chinese.

\* See Sec. 3 for the various forms and uses of this definitive. It varies from *ti*, *thi*, *si*, *di*, *de* to *ri*, *re*, *ra* &c. As the relative it has the following forms *shu*, *shui*, *si sui*, *chi chui*, *ti tiang* &c, Chinese; *thi-nda* Bhotia; *swi-n* Serpa; *ka-di* Lhopa; *sa-re* Lepcha; *a-ti* Limbu; *sa* Kiranti; *te-kwe* Sunwar; *su* Gurung, Newar.

The habit of treating words as crudes, of placing a series of crudes together and indicating the common relation by a single postposed particle is Chinese as well as Scythic. Even the compounding of particles is but a remnant of the crude Chinese stage when the formatives and flexions did not exist, and when complex relations were indicated by several unconnected crudes or particles. Some of the ordinary Chinese definitives and prepositions are double, and repetition and cumulation are much used in the general structure of the language. The Tibetan languages generally may be described as sister dialects of the Chinese, in some traits standing between Chinese and the Mon-Anam family, but in their general structure Scythico-Chinese, the distinctive Scythic traits being probably secondary or acquired. If the pronouns and particles had been Scythic more than Chinese we might have recognised in Tibetan the genealogical link between the former and the latter. But as the reverse is the case, the glossarial basis of Scythic must be considered as representing that archaic dialect—allied to the Chino-Tibetan but distinct from it—in which the inversive structure was developed, and from which it was transmitted to the western or outlying branch of the Chino-Tibetan family.

### Sec. 3. PRONOUNS.

#### 1 *Bhotian*.

The 1st pronoun of Bhotian, *nga*, *na* is Chinese, *ngo*, *ngai* &c, and although not now a prevalent Turanian form its wide diffusion in archaic eras is proved by our finding it in the Dravido-Australian, Caucasian and Semitico-Libyan formations, and in N. E. Asian, and American formations. Other formations are also used. The honorific *nged*, is distinguished by the slender vowel and the dental postfix found also in the 2d pron. The form *nge* occurs in the Lhopa oblique forms *nge-yi*, in the adjacent Takpa as the regular form *nge*, also softened to *nye*, and in the oblique form of Singpho, *nge-na*. It is not probable that in the Tibeto-Ultradian province the *e* form originated in Bhotian and in Tibet was confined to that dialect. It appears to have been an archaic Tibetan form current with *nga* and *ngo*. *Ngo* itself, the current Chinese form, is no longer found in Tibet, but its former existence there and its antiquity are attested by the Abor-Miri *ngo*, Lepcha



and Sunwar go, Tiberkhad geo, Milchanang and Sunchu gu, which cannot have been directly derived from the Chinese ngo, ngu, ngoi, gu &c. In like manner the prevalence of e and i forms in the eastern Takpa, in Mikir, in some of the Naga dialects, in Tunglhu, in some of the Nipal dialects and in Tiberkhad shows that they were widely diffused at an ancient period, and that they cannot be referred to the modern spread of Bhotian across the Himalayas. In a previous page, while adverting to the difficulty of distinguishing between the Dravirian and Tibetan forms in e, i, I observed that in Dravirian the slender forms had been produced by the incorporation of a *possessive i, e*, with the pronoun, while the Tibeto-Ultraindian appeared to have incorporated a plural *i*, and were hence regularly or most commonly found in the plural only. The Takpa, Kinawari, Tibetan and Mikir *e* forms I attributed to a purely phonetic substitution of *e* for *a*. It is hardly possible to decide to what extent the variations may be simply phonetic as in the Chinese ngoi, ngai, ngei, but it certainly appears probable that in Tibetan the variation of nga to nge, ngi was originally an assimilative or incorporative plural form analogous to the Scythic. As Tibetan has also a *ni, i*, possessive postfix a similar variation may have been also possessive as in Scythic and Dravirian. The Kinawari Bhotian nga singular, net pl. suggests that ne was an archaic pl. form, and its honorific use in the Tibetan Bhotian nged might be explained in accordance with this, the use of "we" for "I" being the most prevalent honorific idiom in the 1st pronoun. The Serpa nga s. *ni-rang pl.*, Gurung nga s., *ngi-mo pl.*, Dhimal ka s., *ky-el*, pos., *ki-ng pl.*, (2d pron. na s., *ni pl.*), Garo ang s., *ning pl.*, Naga nga s., *ni-ma pl.* and some of the other forms given in the Table (chap. v. sec. 11) are strongly in favour of the archaic Tibeto-Ultraindian having possessed an incorporative or assimilative plural in *i, e*. The Lhopa nga nom, *nge-yi peu* (2d pron. *chhu n*, *chhe-gi p.*), shows how possessives might be formed in the same way by the euphonic assimilation of the radical vowel to that of the postfix.

Mr Robinson gives rang, dag, and kho as other forms of the 1st pron. The 1st is the reflexive affix ("self"), the 2d is the plural particle, and the 3rd is the 3rd pronoun used for the 1st.

The 2nd pron. khyod *mr.* khe *sp.* is not the prevalent Chinese

ni, na &c. like the Si-fan and common Ultraindo-Gangetic terms. It appears to be an archaic Chinese or Chino-Scythic form, and a variety of the same Chino-Scythic definitive that is used in Bhotian as the 3rd pron. The Chinese ju, jo, may be a variety of the same archaic form. The Sokpa broad form of the Scythic 2d pronoun chha is identical with the Newari chha and the Kiranti kana preserves the same vowel.\* The Bhotian khe has the common slender vowel of Scythic (i, e) and the same vowel is found in the N. E. Tibetan dialect of Thochu kwe, in Limbu khene and in Gurung ken which preserve the Scythic pronominal postfix (comp. Yakuti -ghen, -gen, -ken and the current Scythic sen, sin, sina &c.) The Thochu has also a form in a, kwa, corresponding with the Sokpa, Newar and Kiranti. In the Bhotian khyod the root is khyo or kho. T being a common Bhotian augment Kinawari has keot, kherung in which the root is keo, khe. Serpa has khyo, khye. The -d, -t, of Bhotian and Kinawari is a postfix not found in the 2d pron. of other languages of the alliance, and only occurring in the 1st pron. in the exceptional Bhotian honorific nyed, Ladak and Kinawari Bhotian pl. net, in both of which it may be a form of the plural dental and sibilant postfix (comp. en-eshe Tiberkhad). In khyod it may be merely a Tibetan augment or postfixed definitive, corresponding with the -s, -t, -d, -h found in some of the Tibeto-Ultrindian varieties of the Chinese numerals. If not a mere phonetic augment, it would appear to be a Scythic trait and to correspond with the nasal postfix of the Scythic pronominal system which occurs in Limbu khe-ne, Kiranti kha-na, and Gurung ke-n. A similar postfix was probably current in the Tibetan dialect from which this form of the 2d pron. was derived. The Bhotian d, t may be merely a variation of n. In one of the Samoiede dialects a similar replacement of the Scythic -n by -d takes place, to-di (comp. the Ugrian to-n &c).†

\* In a later page the connection of the Sokpa pronoun with the Scythic on the one side and the Tibeto-Himalayan on the other is examined.

† The current Chino-Tibetan numeral 2 is the same liquid def. that forms the 2nd pron., li, ni, urh &c. But in the Tibetan 8 (4, 2) a form of 2 occurs which has a considerable resemblance to the Tibetan 2nd pron. gyud, gyet, gye, in Lepcha keu. It may however be merely the current 2 nyis, Lepcha nyet, Burman nhit with the g- pref. and n elided. If gyu, gye, keu be a Chinese def. it is similar to the unit preserved in 9 kiu, kyeu &c. The existence of an archaic Chinese dialect in which the same def. slightly varied or doubled entered into 2 as well as 1, would be in accordance with Scythic and N. E. Asian analogy.

The 3d pron. is kho, khu, in Lhopa kho, Serpa khwo, Lepcha heu, Limbu khune, Magar hos, hoch. The regular vowel is o, u and this alone distinguishes the root from the more prevalent form of the 2nd pron. which has e as its proper vowel. The only analogous pronouns in the adjacent languages are the Thochu kwan, and tha-cha and the Sokpa and Gyami tha.

All these varieties are Chinese. T'ha is current in Kwan-hwa; ki in Shanghai (also gi) and Chio-hu, and in the contracted form í it is common to Kwan-hwa, Shanghai, Tie-chiu and Hok-kién; ku is Kwan-hwa and khui Kwang-tung. Ke, keu, keue [comp. Lepcha peu] are other varieties. The Bhotian khu, kho and the allied Tibeto-Ultraindian forms are most closely related to khui and this is consistent with the affinities of the numerals which are also in the full archaic Chinese forms best preserved in Kwang-tung and some of the other southern and central Chinese dialects. The dental with the slender vowel is a demonstrative in Shanghai ti, "*this*" and Kwang-tung, deng "*that*." "*This*" is che in Kwan-hwa, chi in Tie-chiu, chit, chia in Hok-kien and koi in Kwang-tung. Burman like Bhotian has a broad form thu, and Lau has it gutturalised khon as well as in the dental form tan, corresponding with the Changlo dan. The Chinese slender forms are found in Manyak thi, Gurung' thi, Murmi the, Kinawari te, Lepcha he, Naga a-te, a-ti, Singpho khi. Thi occurs in Burman also but as a demonstrative "*this*." The same root is the prevalent Scythic 3rd pron. varying to s, h; ta, tam; han; son, zo; ten, teu, ze, se; sin, tida, di, kini &c. Mongolian has e-gun corresponding with khune of Limbu. The dental form is also N. E. Asian, cha-ta Yenis., tun-dal Yukahiri, tana, taan Aino-Kurilian, tana (Sanskrit tad) Namollo, tie, tugh Kamschatkan, tso, dsee Korea. Japanese has the guttural form kare.

The Bhotian root of the 2nd and 3rd pronouns may be considered as Chinese and Chino-Scythic. Its use for the 2nd pron. is not Chinese, but Scythic. Possibly it may have displaced the common Chino-Tibetan and Ultraindian root in the 2nd through the influence of Sokpa or another Scythic dialect. Its absence in all the Tibeto-Ultraindian dialects save Bhotian and the few Himalayan dialects that have been much affected by Bhotian, is in favour of its having always been confined to that dialect and of

its not being archaic even in it. The identity of the Sokpa and Newar pronouns is also consistent with its recent introduction. But the Bhotian form, its connection with the 3rd and the archaic Chinese character of the latter, make it probable that the west Tibetan system is archaically connected with Scythic as well as Chinese. The other evidences of an archaic connection with Scythic are too numerous to render the presence of a 2nd pron. analagous to the Scythic anomalous. That the connection between the 2nd and 3rd pronouns is Scythic will appear by comparing the Thochu kwa, kwe 2nd, kwan, tha-cha 3d; Bhot. khycā, khe 2nd, kho, ku 3rd; Lhopa chhu 2nd, kho 3rd; Lepcha hau 2d, heu 3rd; Serpa khyo 2d, khwo 3d; Limbu khe-ne 2nd, khu-ne 3rd; Kiranti kha-na (Newar chha) 2d, mo-ko 3rd; with the Mongolian chha 2nd, tha 3rd of Sokpa; the Turkish ghen, -ken, -gen (verbal) 2nd, kini 3rd of Yakuti, sin 2nd, kin, -sin-si, -i 3rd of Osmanli &c; with the Tungusian si 2nd (i, pl.), tche 3rd of Manchu, si, sin, s, 2nd, in, (pl. tin) 3rd of Nyertshmsk; with the Ugrian sina, sa, si, ton, tin, te, d, t, k, &c 2nd, han, nsa, sa, son, sya, tida, s, si, t, d, ka, ja 3rd; and with the Samoiede tan 2nd, tam, tap 3rd, pu-dar 2nd, pu-da 3rd, -t, -th, -d, -dh, -r, 2nd and 3rd.

The same root is common as a demonstrative, relative, interrogative and locative in the Chinese and Tibeto-Ultraindian vocabularies. "*This*," tsz, che Kwan-hwa, ti Shanghai, chi Tie-chiu, chit, chia Hok-kien, koi Kwangtung; cha Thochu, chi-di Gyar., thu Many., wo-chu Takpa, de, di, re Bhot. &c, kon Limbu, chun Murmi, tho Newar, chun yo Gurung. "*That*," ki Kwan-hwa, i, ku Shanghai, deng Kwang-tung, tha Thochu, wo-tho Takp. (wa Hok-kien, pi Kwan-hwa), gua-thu Many., de, re Bhot. &c, khen Limbu. "*Who*," shui, shu, sa, si sui, chi chui, ti tiang &c Chinese. "*Which*?" su Thoch., Gyar., Hor., Many., Takp., gang, khang, ka-di Bhot. &c, kha, ko Kir., kha Murm., gu, su Newar, su Gurung, kos Magar. "*What*?" thu Gyar., si Takp. achin Horp., chi Bhot., khang, kan Bhot., shu, chhu, ta, the, di, de, tigi, hi Himalayan. The guttural forms are Bhoto-Himalayan (Bhotian, Limbu, Kiranti, Murmi, Magar). Forms in *a* are found in Manyak, Gyarung, and Horpa, as well as in Bhoto-Himalayan. The slender forms in *e*, *i*, it will be remarked, are also current in Bhotian.

The plural postf. -chag has the form -dag with substantives. In Lhopa it is contracted to -cha, and in spoken Tibetan varied to -jo or -njo. It would probably be more correct to consider the final -g as the common Tibetan final augment, corresponding frequently with the softer -ng, *n*, *r* of other languages of the alliance, but it may be the guttural Scythic pl. def. as in the Horpa *ri-gi*. The root *cha*, *da*, *jo* is the widely prevalent Scythico-Tibetan plural particle. Comp. the Scythic forms in *t*, *k*, *g*, *d*, *s*, *z*, *ch*, *r*, *n*, *l*, all variations of *t* (*ante* vol. viii, p. 204), and corresponding with the Chinese *tu*, *su*, *shu*, *chu*, *chung*, *chai*, *tang*, *teng*, *tse*, with the Manyak -*du-r*, -*ju*, Bodo -*chu-r*, Burman -*do*, -*to*, Serpara -*ng*, Garo -*ra-ng da-ng*, Horpa *ri-gi*, Magar *ri-k*, Bengali *di-g*, Tiberkhad *a-tu-ng*, Kinawari *ta-m*, *ta* (in *tam-she*, *ta-she*, from the Chinese double pl. *tang-tse*). The vowel of the spoken Tibetan corresponds with the Manyak *du*, *ju*, Limbu *yu*, Bodo *chu*, Mongolian *od*, Chinese *tu*, Burm. *to*, *do*. The written form may be referable to the Chinese *tang*, like the Kinawari and Changlo *tam*, but it is also Mongolian -*da* (Buriate) and Manchu *ta*.

The poss. -*ki*, *gi*, *kyi*, *hi*, *yi* is the common Gangetic, Ultraindian and N. Indian guttural found also in Chinese, *tih* or *teik*, *che*, *te*, *ku*, *ko*, *kei*, *koi*, *keur*, *ge*, *e*. It occurs in the adjacent Tibetan dialect of Thochu, *k*.

## 2. Horpa.

Mr Hodgson informs us that the Hor-pa occupy the western half of Northern Tibet, "and also a deal of Little Bucharía and of Songaria, where they are denominated Kao-tse by the Chinese and Ighurs (as would seem) by themselves." "In southern Tibet there are numerous scattered Hor-pas and Sok-pas as there are many scattered Bod-pas in northern Tibet." (p. p. 122, 123). Further on he remarks that on the evidence of his vocabularies the Sokpo of the Tibetans are the Olet or Kalmak Mongolians of Remusat and Klaproth "whilst their confrères the Horpa are almost as evidently Turkish, the Turkish affinity of the latter being inferred, not only from the vocables, but from the complex structure of Horpa verbs and from the quasi Arian physiognomy of the samples he has seen of the Horpa race." Professor Müller has remarked that by its pronouns and numerals, it is Bhotiya (i. e. Tibeto-Ultraiudian) and he has accordingly ranged it provisional-

ly as the most western branch of the Trans-Himalayan dialects of that family. Both pronouns and numerals undoubtedly belong to the derivative Chino-Tibetan system, but they have some peculiarities when compared with the other known Tibetan languages.

The 1st pron. nga is the Gyarung and Bhotian form of the Chinese.

The 2nd, ni, is not Bhotian and it differs from the Gyarung nan, na, and Manyak no in its possessing the more prevalent of the Chinese forms (ni Kwan-hwa &c, found also in Gyami). This form is comparatively rare in the Tibeto-Ultraindian dialects. Takpa i, Dhimal ni, Deoria Chutia a-ni. The e, of Namsang Naga and Burman is probably a variation of i.

The 3rd pron. vja, vjya (in pl. vji) is peculiar. It appears to be a variety of the Scythic sibilant (and dental) 3rd pron. (comp. Ugr. sya, Sam. di, &c) corresponding with the Magyar ja.

The plural postfixes are -ni (Thochu, Sokpa &c, *supra* p.); and -rigi or rigya, the first element of which is either a native variation of ri or the Manchu -ri, while the second is the widely prevalent -ki &c (Chinese, Scythic &c). Manchu has a similar pl. -jer-gi. The possessive is formed by an elongation of the vowel of the root, ngaa, nii, vjaa, an idiom the same as the Newar locative ("in," "on") and analogous to the Bhotian and Garo repetition of the final sound of vocables when used assertively.

The prefixual v- of the 3rd pronoun is an example of a usage which is found in other words and is distinctively Tibeto-Ultraindian of the curt Bhotian type.

### 3. *Thochu*.

The Thochu pronouns are:—

1st chi, ka; 2nd kwa, kwe; 3rd kwan, tha-cha.

Ka (1st)—probably a variation of the common Tibetan n̄ga— is found in Dhimal and in the oblique form of Lepcha. The change from n̄g to k also takes place in Naga, -ak for -ang. Similar guttural forms are found in Milchanang, Tiberkhad, Naga, Khyeng, Kyan, Silong and Lau.

Chi (1st)—recurring in the Newar ji—is a remarkable term as it has no direct or apparent affinity with the Bhotian n̄ga, na, the Chinese ngo &c and is still more remote from the Scythic labial. But it is highly improbable that it is a distinct root. The *ch*

appears to be merely a variation of *h*, for in the plural and dual forms *chu-k-lar*, *chi-ki*, *che-un* the *h* is absent altogether. In the possessives there is a similar alternation of the two forms, *ka-k-chi* "mine" *chi-k-uh* "our's". These variations give us *chu*, *chi* and *che*, or gutturalising them and adding the current guttural form, *ka*, *ku*, *ki*, *ke*, analogous to the Ultraindian series, *ka*, *ku*, *ki*, *ti*, *gi*, *geo*, *he*, and to the Chinese *ngai*, *ngoi*, *ngu*, *ngei*. The vowel of the 2nd pronoun like the 1st varies from *a* to *e* in Thochu. The root occurs in the form *ti* in *Mulung* and *Tablung*, and the guttural forms also take *i* in *Tiberkhad*, *Mileh.*, *Khyeng*, *Kyan* and *Silong*. *Joboko Naga* has *ke*. Some of these forms are plural, and probably the primary *i*, *e*, form was plural \* 2nd *kwa*, *kwe*, "thou" is similar to the *Bhotian khyod*, *khe* (in Himalayan dialects *khe*, *ke*, *ki*, *kha* &c.)

The first of the words given for the 3rd pronoun, *kwan*, appears to involve the root of the 2nd pron. with final *n*. In *Bhotian* as in several other formations the same definitive is a common element in the 2nd and 3rd pronouns, *Bhot.* written 2 *khyod*, 3rd *kho* spoken, 2nd *khe*, 3rd *khu*, *Serpa* 2nd *khyo*, 3rd *khwo*. In the last form the vowel has the amplified Thochu form of *kwa*, *kwan*. *Tha-cha* "he" &c is composed of two vocables or forms of the same root. *Tha* is *Sokpa*, *Gyami* and other Chinese dialects and in the slender form the Chinese. In the forms *ta*, *da*, it is also *Scythic*, *Manyak* &c, *thoi Dhim.*, *ate he* &c *Naga*, (*thi Burman* "this," also *Murmi*, *Gurung*, *Bhot.* demonstrative *cha* is but another form of the same definitive). It occurs as a variation of the prefix *ka*, *ta*, in *Ultraindian* vocabularies.

Thochu has three plural postfixes, which occur both separately and conjoined as in some *Scythic* pronominal systems -*ni* (*Sokpa*, *Horpa* -*ni*, *Manchu* -*ri*, *Horpa* *ri-gi*, *Ostiak*, *Yeniseian*, *Yukahiri*, *n*, *Ultraindo-Gangetic* *ni*, *in*, *li*, &c. *Da*, *ir*, *n* &c); *ki*, *ko*, *ku*, *k*; and -*lar*. *Ki*, *ik*, is Chinese and *Scythic* (*Chin.* *ki*, *Hungarian* -*ek*, *Turkish*, *N. E. Asian.*) It recurs in *Sunwar* -*ki*. In the *Kasia* definitive *ka* sing., *ki* pl. the *i* by itself is plural, as in *Scythic*. *Kol* has *ko*, *Gond* *k*, *g* &c. *Lar* is *Turkish* *lar*, *ler*, *Mongol* *nar*, *ner*, *Kol* *nar*. *Kwe-ni-ko*, *kwa-ni-k lar* "ye" are examples of the single, double and treble plurals. *Lar* has obviously been the latest

\* See the preceding remarks on the *Bhotian* 1st pron.

acquisition as in the Turkish *b-iz-ler* "we," *s-iz-ler* "you". The Dravirian *-kāl, gal, -ngal, -kulu, Dhimal -galai; Naga -khala, kara* combine two of the roots. *L, r* without the *k* is Dravirian as well as Scythic, and common in Ultraindo-Gangetic languages e. g. Takpa *-ra*, Abor *-lu*, Dhimal *-al, -el*, Mikir *-li*, Garo, Miri, Serpa *-rang*, Bengali *-era*. These forms and those in *n* are variations of the same root.

There are two possessives *-chi* and *-k*. *Chi* is Chinese *-ti*, Serpa *-ti*, Tengsa Naga *-chi*, Dravirian *-di, -ti* &c. The possessive *k*,—which may be radically the same as that in *ch, t*—is Chinese *ko, ku, keu* &c, Bhotian *-kye, -gi, -hi*, &c, Takpa *-ku*. It is very common in the Ultraindo-Gangetic vocabularies *ko, ku, ke, ki, ka* &c. Ex. of the Thochu possessives, *ka-k-chi* "mine," *kwe -k-chi* "thine" *tha-k-chi*, *kwana-k-chi* "his," *chi-ku-k* "ours," *kwa-ni-ku-k* "yours," *tha-ku-k* "theirs."

#### 4. *Gyarung*.

The *Gyarung* pronouns are—

1st *nga, nga-yo*. Horpa, Bhotian, Namsang Naga Kasia, Burman; Murmi, Gurung, Magar, Serpa. The Chinese form is *ngo* found in Abor-Miri and with the consonant gutturalised in *Lepcha, Sunwar* and *Milchanang (go, gu)*.

2d, *nan-re, na†*. This pronoun like the *Manyak no*, differs from the Bhotian and Thochu. It is a variety of the Chinese *ni* (also Horpa) found in the Shanghai dialect *na, nong* and in the ancient *Kwan-hwa nai, nei*. It is also Ugrian in different Chinese forms, (*nan, nei, num, nyn*), and in the slender Chinese and Ugrian forms *ni, ni-n* it is Dravirian and Australian. The varieties *na* and *nu* are also found in Draviro-Australian. The *Gyarung* forms *nan, na* are the common Ultraindo-Gangetic ones, *nan*, (more frequently *nang*), *ngar, nga, na*. From the great and wide prevalence of the forms in *a, an*, they appear to have preceded the dissemination of the *Manyak* variety *no*.

\* This merely mechanical heaping of particles is a Scythic habit and not merely Tatar and Tibetan. Thus in the Hungarian *m-i-e-n-k* "our" the pronominal root occurs twice, *m* and *n*, and each time with a different plural postfix, *-i, -k*, the two being connected by the possessive particle, *e*.

† *Ni* is given in the *Voc.* as the poss. prefixal form, but this appears to be a misprint as Mr Hodgson elsewhere (p. 33) speaks of *na* as the poss.



The 3d pronoun is *wa-tu sep*, *wa pref.\** *Wa* is the labial def. 3d pron. &c, of Bhotian, Scythic and N. E. Asian and of Dravido-Australian (also Caucasian, Semitico-African &c.) The Gyarung form and varieties of it are common in the Ultraindo-Gangetic vocabularies (*wa* Dhimal, Garo &c). The Ultraindo-Gangetic forms in *u* (*bu* &c) are probably from the Tibetan *mo*, *vo* &c. The postfix *tu* is the universal dental def. Varieties of it occur also in *thu* "*anything*," Gyar. and *su* "*anybody*" "*which*," "*who*" Gyarung, Tib., Thochu, Horpa, Takpa, Manyak; Takpa and Horpa have also slender forms *achin*, *si*. It is common in various forms in the Ultraindo-Gangetic languages. In the plural *ya-pos* the root is not a variation of *wa* but of the Horpa *ja*; *jya*.

The plural particle appears to be *-pos*, *nga-pos* "*we*," *ya-pos* "*they*," is probably a variety of the labial Chino-Ultraindian *mun*, *me* &c., Gurung-*mo*. The Magar-*hos* is probably a modification of *-pos*.

The possessives are simply the roots *nga*-, *na*-, *wa*-, prefixed.

A further pronominal element *yo* occurs, but from the transposition of some of the words in the printed Voc. its real power is somewhat uncertain. The forms given are *nga-yo* "*I*," *yo* "*we*," *nyo* "*you*." It might be thought from the last two that *yo* was a plural particle, and from the first two that it was a root for the 1st pron. corresponding with the Chinese *yu*. It occurs in the Horpa *su-yo*, (Manyak *su-ye*) "*anybody*" (Gyar. *su*, Takpa *si-rang*, Thochu *song-wan*.) If these forms stood alone the *-yo* of *nga-yo* might be considered as a singular or common definitive used to emphasise the pronoun. But in Lepcha it is a plural postf. (*-yu*). The spoken Bhotian plural postfix of the pronouns *-njo* appears to be the same particle and it is also found in the Manyak dual *-ju*. Lastly, in Bodo which has special glossarial affinities with Gyarung and Manyak, it occurs in the nasalised form *jong* as the plural pronoun, corresponding with the Gyarung *yo* and Manyak *a-ju*. If we have correctly traced the etymology of the Manyak *ju* and *dur*, all these plural forms are variations of the archaic Tatar numeral 2.

\* The Voc. gives *nga-pos*, *wa-tu*, but the former is obviously the plural of *nga* "*I*" transposed.

5. *Manyak*.

The Manyak pronouns are :—

1st, a ; a contraction of the Tibeto-Ultraindian nga, ang, ak &c found also in Naga (Angami and Mozome Angami) and (in the pl.) in Mikir.

2d, no ; a variation of the more prevalent Sifan-Ultraindian na (Chinese) such as occurs in Chinese (nong) and Dravirian dialects (nu, un). The same variety is found in Abor, Deoria Chutia, and Naga (Angami and M. Angami). The 3d pron. thi is Chinese (Gyami has the broad form of Chinese, tha). The same variety is possessed by Gurung, and a slight modification of it by Murmi the ; Naga *ate*.

The plural postfixes -dur (whence Bodo-chur). The root is the same as in the Mongolian -od &c (Chinese tu Burman to, do, euphonic) with final-r as in the Mongol, Turkish and Thochu na-la-r, k-la-r. But it is directly referable to an archaic Scythic form of the numeral 2, current in Tungusian, djur, dsur, juo and Caucasian zur (Lazian), and preserved also in 4, that is 2 dual, in Turkish dor-t, tuor-t, Mongolian dur-ban (Sokpa tir-ba), and Indo-European ka-tvar-as, ke-tur-i, pe-dwar &c. In the current Mongolian 2 it exists under the form yur, yor (ko-yor, in Sokpa ho-yur). Manyak has also a dual form of the 1st pronoun, a-ju. The postfix ju is evidently a variation of the same numeral as in the Manchu juo. The use of the Tatar numeral root 2 as a dual and plural postfix cannot be referred to any recent era of that formation. It points at an archaic connection between it and the Tibetan. The use of a dual form distinct from the plural is itself a piece of concurrent evidence, for the dual is wanting in the Tatar languages in their present form although preserved in some languages of the Ugro-Fin branch of Scythic (Lap, Kamass, Ostiak, Samoiede, *ante* p. 22). The origin of some of the most widely prevalent plural particles in the numeral 2 has been noticed in other portions of this enquiry.

The possessive is -i or -e which is Scythic -i, -e, (Mongolian and Manchu -i) Tibetan -i &c, Burman -i, Dravirian -i, -e.

6. *Takpa*.

It is not quite clear whether this dialect is spoken in any portion of the northern side of the Himalayas. The Towung raj is on

the upper habitable portion of the southern to the east of Bhutan. But as it has Bhotian dialects on at least two sides, and is politically and ethnically connected with Tibet and not with Asam, I will give its pronouns and particles here. In its general character it is more Sifan than Bhotian, but it has many purely Bhotian vocables and even some Bhotian particles, the presence of which is explained by the long predominance of the Bhotians in this portion of Tibet, their extension to the southward over Bhutan, their conquest of the Takpa province, and the retention of it by the Tibetan Bhot after their relinquishment of Bhutan.

1st pron. nge, nye. See the remarks on the e forms of Bhotian &c.

2nd ni, Chinese like Horpa.

3rd pe, be, a current Chinese form, the Gyarung wa being a variation of the same root. The plural postf. -ra is an element in the Horpa -ri-gi. The poss. -ku is one of the Chinese forms.

#### 7. *Sok-pa*

I notice this vocabulary because it is the only Scythic one with which any of the known Tibetan dialects are now in contact. It is important also as the modern and existing illustration of one of the great standing facts of the ethnology of Upper Asia, the mutual influence of Scythic and Tibeto-Chinese, and it acquires a still greater interest when it is found that the partially Scythic structure, phonology and glossary of the Tibetan dialects cannot be ascribed to it and consequently indicate an archaic connection with a different branch of Scythic.

The Sok-pa vocabulary is Mongolian. The 1st pron. mi, bi, abu, is the common Scythic labial and none of the Tibeto-Ultradian roots are related to it. The 2nd pron. chha, appears to be connected with the guttural of Thochu, Bhotian and the Nipal dialects. Newar has the same form chha, while Lhopa has chhu. As the Sokpa poss. has the form chhi-ni it is probable that it is a variation of the Scythic si (comp. Buriate s'i, c'i &c in poss. s'in, s'ini &c.) In Samoiede the prevalent vowel, i, becomes a, o, (tan, todí &c) and some of the Ugrian dialects have a or o in the pl. The variation of s and t to k takes place in Scythic languages in the 2nd pron. as in other vocables. It is found in some of the Ugrian, Samoiede and Yakuti forms.

The plur. -ni is Horpa, Scythic &c (*ante* p. 47.)

The Sok-pa 3rd pron. tha' is Chinese, Gyami, and Thochu. A def. postfixed to some substantives in the forms -kwe, -khe, -gwe, -ge is identical with the Thochu 2nd and 3rd pronouns kwe, kwa, and with the Bhoto-Himalayan 2nd pronoun khe, ke, ka.

The miscellaneous Sokpa vocabulary abounds in Mongolian words. It has received a few Tibeto-Ultraiidian, and communicated some to Bhoto-Himalayan, but the latter are so few as to show that the two races have not been long and intimately connected. A few Sokpa words appear to have been carried across the Himalayas, e. g. the Sunwar khweli "*foot*," Sokpa khoil; ne "*name*," Sokpa nér. The Bhotian 7 is Mongolian.

8. *The mutual connection of the Tibetan pronominal systems, and their relation to the Chinese and Scythic.*

The Bhotian 1st pron. is Chinese, the vowel however being not the current Chinese *o*, but *a* which was probably archaic Chinese also, as it is N. E. Asian and Dravido-Australian. The 2nd and 3rd deviate much more widely from the current Chinese forms, and appear to be archaic Chinese and Scythic. They are both applications of the same primary definitive.

The Horpa 1st pron. is the same as the Bhotian. The 2nd is a current Chinese variety and evidently not connected with the Bhotian. The 3rd is peculiar and Scythic or Chino-Scythic.

The Thochu pronouns, the most northerly of the East Tibetan, are much less closely connected than the Gyarung with the prevalent Ultraiido-Gangetic. They are akin to the less diffusive Bhotian, and like the Bhotian depart considerably from the forms common, with little variation, to Chinese, Si-fan, Ultraiido-Gangetic and Dravido-Australian. The plural and possessive particles are Chinese and Scythic and some of them appear to be of comparatively recent Tatar introduction.

The Gyarung pronouns are varieties of the Chinese, the 1st being the same as the Horpa and Bhotian, but the 2nd being distinct from the Bhotian and identical with Shanghai forms as the Horpa is with the Kwan-hwa. The Gyarung forms of the Chinese pronouns are entitled to be considered as constituting the normal or distinctive and predominant Si-fan and even Tibetan system, as the Thochu and Bhotian 2nd pron. is very abnormal,

and the Manyak are evidently contractions and variations of the Gyarung. The great prevalence of the latter in Ultraindo-Gangetic vocabularies shows that they were spread to the southward as the regular Si-fan forms, before the exceptional Manyak and Bhotian were produced, or at least before they began to be disseminated abroad. The Gyarung plural particle appears to be also Chinese and not Scythic like that of most of the Tibeto-Ultraindian dialects. The 3rd pron. *wa* is a variety of the Chinese labial 3rd pron., *pi Kwan-hwa*, still current in Hok-kien as a demonstrative, *wa*, *that*. The Chinese slender current form is found in Takpa *pe*, *be*, Dophla *bi*, Naga *mi*, *me*. This 3rd pron. is Scythic as well as Chinese. Scythic *bi*, *wi*, *pu*, *bu*, &c (Abor *bu*). It is also Dravido-Australian.

The Manyak pronouns, 1st *a*, 2d *no*, are varieties of the Gyarung and the same varieties are found in the Ultraindo-Gangetic languages (Abor, Naga). The 3d pron. is not Bhotian but Chinese and the same variety of Chinese is found in Gurung, and with slight modifications in Murmi and Naga. The plural postfix is archaic Tatar and it occurs slightly varied in Bodo. The poss. is Scythic (Mongol, Manchu) and Burman.

The Takpa 1st pron. is a rare form in its vowel but with Bhotian and Ultraindo-Gangetic affinities. The 2d is current Chinese in its vowel like Horpa. The 3d is also current Chinese. The possessive particle is current Chinese, and the same form is found in Ultraindo-Gangetic dialects. Takpa has thus distinct and direct Chinese affinities, and the existence of current Chinese vocables and particles in a dialect placed like it explains their occurrence in Burma-Gangetic vocabularies in those instances where they cannot be referred to Bhotian nor to the direct modern action of Chinese on the Ultraindian languages. The non-Bhotian Chinese affinities of the Si-fan vocabularies are less striking and instructive with reference to the southern dissemination of Chinese forms, because they are actually conterminous with Chinese. It must be inferred that Takpa occupied the eastern portion of the Tsang-po basin, prior to the spread of the Bhotians in that direction, and that it was deeply acted on by Chinese. The forms do not appear to be entirely referable to the primary connection between Chinese and Tibetan, nor even to the

earlier periods of the mutual influence of the two families after their separation, and occupation of distinct provinces.

The Tibetan system of pronouns and other definitives is Chino-Scythic, and in its basis very archaic and, as a whole, not referable exclusively to any of the existing Chinese or Scythic languages as its parent. The roots are in general Chinese and Chino-Scythic and such as probably all existed in ancient Chinese dialects. Their forms are of an intermediate kind, the root sometimes appearing bare where in Scythic it would have a postfixed definitive, but in general the system presents compounds similar to those of the cruder and less agglutinative Scythic languages. While some of the forms of the particles are similar to the most prevalent Chinese and Scythic, others are more archaic, resembling remote Ugrian and N. E. Asian varieties. The pronominal roots are current Chinese, with the exception of the Bhotian 2d pronoun which is a broad form, similar to the 3d and to the broad forms of the allied Scythic 2d and 3d. The Sokpa *chha* has not the current slender and sibilant Mongolian, Tatar or Ugrian form, but one more akin to the Yakuti and Samoiede, and closely connected through the corresponding forms of the 3d pronoun with the Chinese broad form of the 3d pronoun *tha*. It is probable that similar archaic Chinese forms were also common in the archaic Scythic dialects and that they have been retained in some of the Tibetan ones. If Sokpa be an intrusive Mongolian dialect in a comparatively recent age it may have acquired rather than bestowed its broad 2d and 3d pronouns when it came in contact with the Tibetan languages. The 3d has the Gyami and Thochu broad form of the Chinese dental root, *tha*, the current Mongolian roots in other dialects being *ede*, *ene*. (Comp. the Quang-tung deng "that", Bhot. *de*, *re*). But one of them has *egun* and the Bhoto-Himalayan *kho*, *khune* &c is the same form. If the Bhoto-Himalayan vocabularies had been much influenced by the Sokpa or other Mongolian it might have been inferred that these pronominal affinities were the result of the advance of the Mongolians into the Tibetan province. But as the general glossaries of the Bhoto-Himalayan tongues have few distinctively Mongolian affinities it may be concluded that the pronouns and definitives are archaic in Bhoto-Himalayan as in Scythic. The Bhotian system

helps to connect the Chino-Tibetan with the Scythic. The Chino-Tibetan is non-Scythic in its 1st and 2d pronouns but Scythic in its 3d. Scythic again may be considered as Chinese in its 2d as well as 3d, for the 2d is radically the same definitive as the 3d. In Bhotian the 1st pron. is current Chinese, while the 2d and 3d are Chinese and Scythic. It cannot be concluded that the more prevalent of the existing forms are the most modern. With the exception of those referable to the later emasculated phonology, all the current varieties and others also may have characterised different dialects and even become blended in the same dialect, in very remote periods.

Although the Chinese system differs from the Scythic in the common root of the 1st pron. it has also a labial root *wu*, *wo*, *fu* *Kwan-hwa*, *wa*, *uo*, *u* *Tie-chu*, which is connected with the Scythic through the N. E. Asian and American systems. Comp. *wu*, *wan*, *wang*, *uonga* *Namollo* and *Eskimo*; *unguar*, *o-ang-kiah*, *be*, *veea*, *mii*, *vieh*, *mii* *Sioux*; *my*, *mu*, *bu* *Kamschatkan* (the roots); *Yukahiri* *ma-tak*; *Japan* *wa-taksf* or *wa-takusi*, *wa-re*, *wa-ga*; *Ost.* *ma-tyot*; *Samoiede* *ma-t*, *bua-n*, *mo-di*; *Ugrian* *ma-tyot*, *mo-n*; *Sokpa* *abu*; and the slender Scythic and Indo-European *mi*, *min*, *bi*, *ben*, *men* &c. Indo-European in its retention both of the guttural and labial definitives in the 1st pron. adheres with Chinese to the primary habit more fully than the Scythic and N. E. Asian languages.

The Chinese 2nd pronoun like the 1st is connected with Scythic through the liquid element of the N. E. Asian and N. American. *Samoiede* *pyd-yr*, *pud-ar* &c, *Esk.* *il-wit*, (*pl.* *el-pech-i*), *Kodiak* *l-s-pyt*, *Namollo* *yei-pyk*, the more Scythic N. American, as the *Sioux* *ne*, *ni*, *de*, *di* &c; the *Kams-chatkan* roots *tu*, *tche*, *se*, *s*, *r*. Comp. the *Japanese* *ana-ta* *sona-ta*; *Scythic* *ne* (*Ost.*), *se*, *si*, *sa*, *te*, *ti*, *ta*, *ton*, *d*, *g*, *chi* &c; *Indo-Europ.* *tu* *thu*, *su*, *si*, *s* &c; *mu-li*, *urh*, *Chinese* *ne*, *ni*, *nei*, *nae*, *ngi*, *lu*, *du*, *ju*, *jo*, *nyu*. In all the systems the connection between the 2d and 3d pronoun is more clearly maintained. In Scythic and Indo-European it is less obscured than in the modern Chinese being indeed as distinct as in Bhotian.

In the various forms of the 3d pron. the relatives, interrogatives

&c Chinese preserves examples of nearly all the Tibeto-Ultrai-dian terms, and of the allied Dravirian, Scythic and Indo-European.

The result is that the Tibeto-Ultrai-dian roots present only some slight dialectic variations of the Chinese, and that as respect pronouns, definitives, and other particles the formation may be considered as a Chinese dialect, or rather as forming with Dravirian and Chinese dialects one mother tongue. Scythic, N. E. Asian and Indo-European in respect to this class of roots, are also similar but more divergent dialects. Bhotian from the absence of the postfixed definitives found in the pronouns of some of the other Tibeto-Ultrai-dian languages is less Scythic and more Chinese in form than these.

#### *Sec. 4. NUMERALS.*

The Tibetan, Himalayan and the allied-Ultrai-dian numerals are very remarkable in an ethnologic view. The earlier systems of numerals in S. E. Asia and its Islands were binary and ternary and these are still preserved in some portions of Asonesia. To these succeeded quinary and denary, radically based on binary and ternary systems. The two latest and most important are the Draviro-Ultrai-dian or Kol, still extant in a fragmentary state in various languages from the Vindyas to Tonkin, and the Malagaso-Polynesian. In the other Ultrai-dian and the connected Himalayan languages there are also traces of an ancient system of the same class, but the prevalent terms are of Chinese derivation. All this affords a striking illustration of the formations that have followed each other in this part of the world, and as improved systems of numerals and their wide extension are connected with the progress of particular nations is civilisation, it is reasonable to infer that the numerals of S. E. Asia and Asonesia indicate the advance into this region of a succession of races, each more civilised or at least more influential than the preceding ones.

Perhaps the most remarkable of all the curious phenomena of Asonesian and Indian ethnology is the absence of any evidence of the Chinese civilisation having, at an ancient period, exercised a powerful influence on the tribes of these two provinces. The reason must undoubtedly be sought in the fact of the Chinese nation having been originally a northern and inland one, entirely unconnected with the sea-board and insular tribes of the Indian



Ocean and the China Sea. What is now southern China was probably included in the Indo-Pacific ethnic province. If the Turanian race had been its earliest occupants we should not find negroes in the Andamans, Ultraindia, and the Philipines, and traces of them, linguistic or physical, in Formosa and Japan. But, putting the archaic negro element aside, it is evident that the non-Chinese Turanian tribes of Yun-nan, the Gangetic basin, Ultraindia and Asonesia must have been ancient occupants of Ultraindia and the southern portions of China, at the period when the Chinese race first advanced into their territories. The difference in physical characters and in civilisation would alone establish this, when taken in connection with the manifest antiquity of the Chinese as a distinct and strongly marked nation. But it rests on still stronger linguistic evidence. The known non-Chinese tongues of Southern China, the Anam and Lau, are in the great bulk of their vocabularies, entirely distinct languages from any of the Chinese, and the difference between the Chinese vocabularies themselves is so great as to render it certain that when the proper Chinese nation was confined to the basin of the Yellow River, numerous other languages were spoken by the independent tribes to the southward. All the Turanian tribes of Eastern Asia, including the rudest Ultraindian and Asonesian, the Kamschatkans and the Chukchi, as well as the Chinese, have many ethnic traits in common, but these belong to formations or civilisations that preceded the Chinese. The Ultraindian and Chinese tribes have also a still more archaic and fundamental connection in their phonologies, ideologies and roots. But this connection reaches back to ages anterior not only to the pre-Chinese civilisations of Eastern Asia, but to the development of all the other linguistic formations that have been spread over the world, including the Indo-Pacific and the Semitico-African. From this fact and the peculiar physical geography of China, which has been instrumental in producing it, we may safely infer that the Anam and Lau are only two of hundreds of distinct languages that were spoken by rude Turanian tribes between the Yellow River and the Ton-king, before the Chinese civilisation arose and began to spread itself beyond its original narrow district of Chin. And this brings us to the numerals. When Chira was only one of the small inland king-

doms of the Yellow River it was much nearer to the North Eastern and Eastern tribes of Tibet than to those of Ultraindia. I have, in another place, suggested that a special connection in race exists between the Bhotians and the Chinese. The Tibetan civilisation, at all events, is of Chinese origin, and amongst the Chinese acquisitions are included the numerals. The early and wide spread of these numerals over Tibet is proved by their presence in the Ultraindian and Gangetic languages in forms allied to the Bhotian but distinct from them, and obviously very ancient. Some are also closer to the Chinese. The Bhotian term for 7, is not Chinese at all, but Mongolian, Tungusian &c and it has not found its way across the Himalayas. I infer from these facts that the Chinese numerals were bestowed, at a very remote period, on all the tribes of Tibet, and that the Tibeto-Ultraindian and Himalayan forms in general were directly received not from the West Tibetan nation that eventually became predominant, but from the eastern tribes, an inference that is in strict accordance with the other facts from which the East Tibetan relationship of the Gangetico-Ultraindian tribes and languages has been deduced. The numerals of the North Ultraindian languages thus tend to prove that the influence of the Chinese civilisation first reached Ultraindia from Eastern Tibet, using that term in an ethnic sense, so as to embrace those tribes allied in race and language to the Si-fan who are scattered over the western borders of China. At a much later period the Lau appear to have received Chinese numerals and spread them over Ultraindia as far as their range extends. Some of their terms are peculiar, the remnants probably of a native or pre-Chinese system. The Chinese terms in Lau are directly derived from Chinese, and not from an intermediate Tibetan or Tibeto-Ultraindian source.

The question whether the Chinese numerals were current in Ultraindia and the Gangetic basin before the Arian era appears to resolve itself into the more general one respecting the period when the eastern Tibetans crossed the Himalayas into Ultraindia, for there is no reason to think that the numerals were not imported with the other glossarial possessions of the race. The mode in which they are partially blended with nearly all the Mon-Anam systems in the most remote and sequestered parts of Ultraindia

and its islands, appears to prove that they were slowly disseminated along with the other Tibeto-Burman words of which a sprinkling is found in the purer Mon-Anam vocabularies. In the Himalayas the fragments of the older numeral systems have the same character as the Tibeto-Ultraindian. They are Tibeto-Chinese in some of the peculiar Ultraindian forms, with traces of the more ancient Mon-Anam terms. The inference from all the data is that the Burmah-Himalayan tribes carried the Tibeto-Ultraindian numerals with them in their progress up the Gangetic basin and into that of the Indus, and that the Chinese terms were consequently used in northern India before the Arians introduced theirs.

The principal remnants of a pre-Chinese or non-Chinese system in the Burmah-Himalayan numerals are those contained in the terms for 7 and 8. Some of the other terms are also not Chinese, either in a Chinese or Tibetan form.

The Chino-Tibetan terms are, in a large number of the cis-Himalayan languages, curiously blended with older ones. In some cases the ancient binary and quinary principles have been retained, while the trans-Himalayan terms have been partially adopted. In others both systems and both sets of terms are intermixed. There are even languages in which the Dravirian, Mon-Anam and Tibeto-Ultraindian formations have each assisted with numeral roots or modes of combining them. Lastly the Sanskrit and the modern derivative systems of India have here and there contributed a numeral.

Several of the Ultraindian and Himalayan systems take post-fixes, e. g. *chi*, *shi* or *sh* Limb.; *zho*, Chepang; *ya*, Kiranti (Vindyan -*ia*); *long*, Dhimal; *he*, Abor Miri; *ka*, Kuki; *ka* or *kar*, Bongju; *bo*, *ple* Karen (2 dialects). The N. Ultraindian have also prefixes as with other words,—*ta*, *tha*, *pha*, *pe*, *pi*, *va*, *ba*, *pa*; *a*; *i* Naga &c; *a*-Dophla; *ga*, *gi*, Garo, *ka* Mikir (2), Lepcha *ka*, *kha* (7, 8, 9, 10, &c). Khyeng has *pa*- as in Naga. It appears also in the Kuki and Bongju 2, with the postf., *pa-ni-ka*; *pe-na-kar*, and in some of the Himalayan terms, e. g. 4, Lepcha *pha-li*, Mag. *buli*, Murm. *bli*, Gur. *pli*, contracted in New. to *pi*; 5, Lepch. *pha-gnom*, Mag. *bang*, affording an unequivocal proof of the western influence of the N. Ultraindian formation. In

Singpho it takes the form *ma*, (3 *masum*, 4 *meli*, 5 *manga*, 8 *makat*). The prefix in the terms for 4 may be exceptional.

In written Tibetan the terms for 1, 2, 3, 4, 7, 9 and 10 have the prefixed consonants *g*, *b*, or *d* and in some cases it will be found that these have been preserved in cis-Himalayan vocabularies.

The publication of Mr Hodgson's Si-fan vocabularies since the preceding remarks were written now enables me to trace the exceptional Tibeto-Ultraindian numerals to their sources in Eastern Tibet.

The Tibeto-Ultraindian numerals are fully discussed in Appendix C, and I shall here confine myself to some remarks on the connection of the Tibeto-Chinese with the other Asiatic systems and on the distribution of the different varieties in the Gangetico-Ultraindian province. I begin with the Tibeto-Chinese.

All the Tibetan numerals are Chinese with the exception of 7 and 8, which are quinary and denary. The Bhotian 7, as above remarked, is a foreign engraftment and probably not ancient, as it has made less progress even amongst the Himalayan dialects than other Bhotian vocables and Bhotian varieties of Tibetan vocables.

The formation of 7 from 2 (5, 2) and of 8 from 2 (4 dual, or 10—2, generally the latter) is a common archaic Aso-African idiom,—N. E. Asian, Scythic, Zimbian &c. Hence the prevalent Tibetan terms are normal, and the Chinese exceptional, if the latter be really substantive words. A comparison of the different numeral elements with those of other Mid and North Asiatic systems will throw some light on this.

1. CHINESE, *chit*, *yit*, *it*, *i'*, *ih*, *chek*, *cha'*, *ja'*; (Gyami i).

TIBETAN, *gchik*, *chik* Bhot., *kati* Gyarung, *tabi* Manyak, (*che* and *chi* in 10) *ra* Horpa, *ari* Thochu. The Hok-kien *chit*, Tien-chieu *chek*, (Quang-tung *yit*) preserve the ancient Chinese form, of which the Kwan-hwa *i'* is a contraction. The Tibetan and Bhotian forms have not been derived from the Kwan-hwa but from the archaic *chit*. The common dental and sibilant def. which passes into the palatal, guttural &c; and the full Tibeto-Chinese form is double as in the unit of Yeniseian, *chus*, *khus*, *huch*, *hautu*, and Kamschatkan, *dis*, *tash* (also *ta*). The Ugrian *ik*, *it*, *yksi* has the *k*, *t*, final element, and the slender vowel also connects it with the

Chino-Tibetan. In some of the higher Scythic numerals the unit is preserved in broad archaic forms similar to the N. E. Asian, chut, kut, kuus &c while others have the slender Chinese and Ugrian forms. Thus in 2 Ugrian has *kyk, kit* &c, Samoiede *sit, side* &c, Turkish *iki* (for *sik* as in 7). The Chinese unit may be compared with the 3rd pron. and demonstratives *ki* or *i, ti, tsz, che, chi, chit*, and with the segregative *chik*. The broad form of Manyak *ta* is probably an archaic Chinese form, a varying to *i* in the pronominal system of Chinese, Tibetan and Ultraindian. The Hailam *ja'* is a current Chinese form in *a*. The Horpa *ra* is an example of that common change of *t, s* to *r* in the Scythic and Tibeto-Ultraindian phonologies on which I have before remarked. A similar variation takes place in some of the forms of 4. The Thochu *a* is a contraction of the Manyak-Horpa form. In 2 and 3 the Thochu forms also correspond with the Manyak and not with the intermediate Gyarung, which with the Bhotian forms have a closer resemblance to the current Chinese in its oldest forms. The Thochu and Manyak are probably representatives of more archaic Chinese forms, the dialects which possessed them in China being now obsolete.

2. CHIN. *urh, ir, il, li, liang, ni', ji, gi, no*; (Gyami *liang, ar*),  
 TIB. *gnyis, nyi* Bhot., *kane*s Gyar., *nge* Hor., *ngari* Thoch..  
*nabi* Many. There is little difference between the Kwan-hwa and the other Chinese forms. The Bhotian *nyi* resembles the Shanghai *ni*. The liquid definitive is current in Chinese as a demonstrative *na* "that", and is found in most Aso-African formations. It is a very common element in the numeral 2, but it appears to be archaically a mere variety of *t, s* in the N. and Mid-Asiatic definitive and numeral systems. In the Samoiede *si-ri, si-ti, si-t*, Mongolian *ko-ir, cho-yur*, Tungusian *ju-r, dzu-r*, Caucasian *zu-r, shi-ri, o-ri, ie-ru* the final *t, s*, becomes *r* as in the Turkish *bir* for *bis*. But the Chinese *li* is probably radically identical with the the first element *si* and not with the second. The def. appears in the same *r* form in Dravirian, the archaic connection of the pronouns of which with the Chino-Tibetan has been elsewhere indicated. Dravirian *ira-ndu, era-d, ira-t* &c, 2. It is also singly or in combination the prevalent Semitico-African root for 2, and a common Aso-African dual and plural particle. The Chinese

forms appear to be connected with the Scythic. From the interchange of *k*, *ch*, *j*, *t*, and *s*, and of *s*, *r*, *l*, *n*, in the Scythic numeral and definitive systems it is not probable that there is any radical distinction between the forms above given and the Ugrian and Turkish *kyk*, *kok*, *kit*, *iki* &c. The existence of the *r* form in the S. E. branches of Tatar (Mongolian, Tungusian) and in the adjacent Chinese, indicates an archaic prevalence of the Samoiède variety in this region and the Chinese may possibly be a contraction of *sil*, *sir*. The Tibeto-Ultraindian *nyi*, *ni* &c is evidently from the Chinese *li*, *ni*, and not a direct derivative of any of the Scythic forms. The final *s* of Bhotian and Gyarung may have been archaic Chinese, but it is more probably a Tibetan augment. The Thochu and Manyak *nga*, *na* are probably archaic Chinese forms, Chinese having *na* as a demonstrative and *no* as one of the varieties of the numeral.

### 3. CHIN. *san*, *sang*, *sam*, *sa*, *ta*, (Gyami *san*, *sang*).

TIB. *kasam* Gyar., *gsum*, *sum* Bhot., *su* Hor. ; *kshiri* Thochu, *sibi* Many. The root appears to be the sibilant *def.*, and as in the binary basis of other systems the same as that used for 1. The broad vowel now distinguishes the form from that used for 1. In the Chinese pronominal system the same definitive occurs as a third pron. in the forms *tha*, *ta* "he &c," as a relative in the form *so* and as an interrogative in the form *shu*, *shui*. Similar forms with variations of the vowel (*thi*, *ti*, *si* &c) are current in the Tibeto-Ultraindian pronominal systems. Although the vowel is *a* in all the Chinese varieties it does not follow that the Tibetan *su* and *si*, *shi* are merely local variations of an original *sa*, for similar forms may have been current in the archaic Chinese numeral as in the pronominal system. The Manyak and Thochu *si*, *shi* are probably obsolete Chinese forms. From the occurrence of *-m* in one of the least emasculated of the Chinese dialects (Kwang-tung) and in Gyarung and Bhotian it was probably the original form of the final. If the vocabulary be native, *m* must be considered radical, as in other Chinese monosyllabic roots having final *-m* in the ancient phonology. But the analogies between the Chinese numerals and the archaic N. and Mid. Asian and the irregular character of the Chinese system suggest the enquiry whether *sam* may not be a derivative from a

foreign system in which *sa* was the root and *m* a postfix. If it be a distinct definitive it is probably the labial possessive and qualitative postfix, still preserved in some Scythic languages, as in Bhotian and which was the distinctive postfix of one of the most archaic Mid and North Asian numeral systems. Remnants of the numerals of this system are found in several branches of Scythic and in the allied Caucasian systems. One of the Yeniseian dialects (Imbask) retains it throughout in the forms *-em*, *-am*, *-m*, *-be*. In the Scythic remnants it has generally a slender form (as in the Imbaski *-em*, *-be*), *-me*, *-im*. The pure sibilant, dental &c, occur as 3 in Korean *sai* (in 30 *shi* as in Thochu) Kamschatkan *tzo*, *cho*, Yeniseian *to*, *tong*. The Scythic terms have generally the double form of the unit as in the Scythic, Chinese and Tibetan 1; e. g. *chudem*, *kujim*, *korom*. In 7 the unit root occurs in the forms *sisem*, *sim*. In Koriak which has a nasal prefix and a guttural postfix the sibilant undergoes the common change to *r* and *y*,—*ng-sho-kam*, *nga-so-g*, *ne-ro-ka*, *ni-yo-ch*, *gi-u-ch*. Aino has also *r* but with the archaic labial postfix *ra-ph*, *re-ph*, *re-zb*. Caucasian preserves a form still closer to the Chinese than the double ones of Ugrian. It has *sami*, *semi*, *sumi*. The postfix has here also the Scythic slender form, and one of the Tibetan dialects Manyak, which preserves the labial postfix throughout like Imbaski, has the same vowel, *-bi*. This is the more remarkable from Bhotian having the form *-po*, *-bo*, as its qualitative postfix. Chinese again has *ku*, *di*, *ti* &c postposed. Manyak itself has *i*, *e* poss. as in Burman and Bhotian (from *ki*, *kyi* &c) and *de*, *da*- &c qualitative. It seems clear therefore that the numeral postfix *-bi* belongs to an archaic Scythic connection. Samoiède has a form similar to the Chinese in 5, *sam*, *sum*, *sobo*, *saba* &c.

4. CHIN. *si*, *se*, *sz*, *ti* (Gyami *si*); TIB. *bzhi*, *zhyi*, *zhi*, in 40 *hi*, in 8 *br* Bhot.; *kadi*, in 40 *pli*, in 8 *or*, Gyar.; *gzhare*, in 40 *ghyi*, in 8 *kh rare*, Thochu; *rebi*, in 40 *zyi*, in 8 *zi*, Manyak; *hla*, in 40 *le*, in 8 *rhi-ée*, Horpa; the variations are thus *si*, *zi*, *zyi*, *zhi*, *zhyi*; *se*; *sz*; *hi*, *hyi*; *ti*, *di*; *rhi*, *li*, *le*, *re*; *zha*, *ra*, *hla*, *or*, *r*. This is the same sibilant definitive, (variable to the dental, liquid and aspirate) that is found in lower numbers. In the basis of most homogenous systems 4 is merely a variation of 2 or of the original full compound 2, 2. If *si* be 2 dual, as is proba-

ble, it is referable to an obsolete sibilant form of li, ri, 2, or to a fuller form of 2 similar to the Samoiede &c, sil &c. The Tibetan liquid li &c occurring in all the dialects, preserves the form now obsolete in the Chinese 4 although preserved in 2, one of many illustrations of the great antiquity of the first diffusion of the Chino-Tibetan numerals. Yeniseian has the same 4, *siem*, *siam*, *ziang*, *shega*, *shaga*. Tungusian has it in the dental form *digin*, *degen*, *dugun*. Koriak has s and r forms, *n-sha-kaw*, *ng-ra-ka* &c. Samoiede has the double dental form *teti* &c which is but a variation of its *siti*, *side*, *siri* &c 2. Mongolian and Turkish have the same double def. in broader forms *dur*, *der*, *dor*, *tir*, *dor-t* *tir-t* &c.

The Thochu broad forms, *zha*, *ra*, may be from the current Chinese like the Bhotian, and probably also the Gyarung. But the initial def. distinct from the Bhotian *b- g-* and the forms of some of the other Thochu numerals are in favour of its being older. The Horpa *hla* is a similar broad form.

5. CHIN. *ngu*, *ngo*, *go*, *wu*, *u*, *ng* (Gyami *wu*); TIB. *kung-ngo* Gyar., *nha*, *nga* Bhot. *nga* Many.; *gwe* Hor., *ware* Thochu. The Gyarung preserves the Chinese vowel. Bhotian, Manyak and Horpa have *a*. In like manner where Bhotian has the Chinese *o* of the 1st pronoun, Gyarung, Horpa and Manyak have *a*. The Horpa and Thochu forms are probably local varieties but they may have an independent connection with Chinese through western varieties similar to the *wu*, *u*, of Kwan-hwa and *go* of Hok-kien. The Thochu *wa* may be merely a variation of *gwe* or of *wu*. It is possible that in it and even in *wu* we have a remnant of an archaic labial 5 (Sec 8). In the earlier numeral systems 5 was generally 1. In those binary systems which went beyond 4, it was 4, 1, that is 2, 2, 1. In the quinary or hand system 5 was 1 hand or full tale. The Chinese *ngu* is a distinct form from the def. used as 1 and from the varieties occurring in 2, 3 and 4 with the exception of *no*, 2. It probably belonged primarily to a system which used a similar form as 1, as is still the case in Koriak. Yukahiri has the nasal def. in 5.

6. CHIN. *lyeu*, *luh*, *lo'*, *luk*, *loh*, *la'* (Gyami *leu*); TIB., *druk*, *duk*, *tuk*, *thu*, Bhot., *kutok* Gyar.; *trubi* Many., *kha-tare* Thochu; *chho* Hor.

The full form of the Chinese is preserved in the Kwang-tung *luk*.



The Bhotian and Gyarung forms are evidently from a similar form. The Manyak *tru* is from the Bhotian *druk*. The Thochu *ta* and Horpa *chho* are probably variations of similar vocalic forms, *to*, &c.

This numeral like 5 preserves no distinct affinity with the lower numbers. In purely quinary systems 6 is a variety of the unit as 5 itself is. But in some of the Scythic systems the scale is ternary, 6 being 3 (for 3, 3), and 7 being 1 (for 6, 1). As the only term similar to the Chinese in the connected systems is the Kamschatkan *roch*, *roka* of *ng-ro-ch*, *ng-ro-ka*, 3, it was probably derived from a cognate N. E. Asian system. The Chinese *luk* is identical with this term, while it cannot be referred to the current terms for 3 or 1, nor to any def. current in the pronominal system.

7. CHIN. *ts'hih*, *chhi*, *ch'hit*, *tsat*, *thet*, *ch'het*, *t'sih*, *sit* (Gyami *chhi*) TIB. ? *skwibi* Manyak, *stare* Thochu.

With this numeral the current Chinese system departs entirely from the proper Tibetan. The latter has a quinary term for 7, that is 7 is the numeral 2 (from 5, 2). The Chinese 7 is not a variety of 2 but of 1 (comp. the full forms *chit* 1, *ch'hit*, *sit* 7). It adheres therefore to the ternary scale and this confirms the conclusion that 6 was 3, 3. Japanese, Yukahiri and in N. America Athapas, can have a similar ternary 7, and in some of the Scythic systems the same double definitive is used as the unit in 7—Ugrian *seitse-man*, *sis-im*, *si-m*, *sata* &c. Turkish *sitc*, *seti*, *siche*, *chedy* &c.

TIBETAN. *ku-sh-nes* Gyar. (*nes* 2), *z-ne* Horpa.. This term is quinary, 2 for 5, 2. The etymology of the prefixed *sh* and *z* must remain for the present uncertain.

In the other Tibetan terms there is much irregularity. I have placed the Manyak and the Thochu with the Chinese, but the connection is doubtful, especially in the case of Manyak. In both the initial sibilant (*s-ta-re* *s-kwi-bi*), may have the same origin as that of Gyarung and Horpa, *sh-*, *z-*. This would confirm the Chinese affinity of the Thochu root, for *ta* is an archaic Tibetan form of the Chinese 1 (*tabi* Manyak). The guttural in the Manyak *s-kwi* may be from the initial guttural in some Tibeto-Ultrindian forms of 2 (*gnyis* Bhot., *khi* Karen).

The Bhotian 7, *bdun*, *dun*, appears to be a Mongolian engraft-

ment (Sokpa tolo, Mong. dolon, &c). It is probable that it is later than the other Tibetan terms, and displaced a quinary one, for it is only found to the south in the Bhotian dialects of Lhopa, Serpa and Changlo, while the other Himalayan systems connected with the Bhotian have quinary terms similar to the Gyarung.

8. CHIN.—pat, pah, pe, boi, poi (Gyami pa). This root has no connection with any of the lower numerals. It cannot therefore be explained as a native binary (4, 4) or quinary (5, 3) term. Besides quinary terms, several of the Mid and North Asiatic system have terms formed subtractively from 10. In these the root for 2 is frequently alone preserved. Pat however has no connection with the Chinese 2. A similar root is 100, pe', be', pa' and the Bhotian 100 appears to be also related to the root for 8. Such a connection would most naturally happen through a labial root for 10, since 100 is very generally expressed like 10 by the unit. In the other systems of Mid and North Asia the labial is a definitive and unit, and it appears at some archaic period to have been a very important root in expressing higher numbers also, as it still is in some of the older systems of the S.E. provinces of the Old World,—Kol, Australian, African. In the Scythic and N. E. Asian system as in Chinese the t, s, r, k, &c. def. is now the chief numeral root, but most of them preserve remnants of labial numerals. Chinese has the labial as a def. (3rd pron. and demons.) under the form pi. In the Scythic and N.E. Asian systems it has still a considerable currency as 1, 5, 10 and 1000. For 1, Ugrian has vaika, va &c, Tungusian emu &c, Turkish bir, [=bis, bit] per, Japan fito; for 5, Ugrian has vate, vis &c, Turkish bish, besh &c, Iroquois wish, wis &c; for 10, Samoiede has bet, bi, wi, bu, bun, Tungusian men; Turkish wona. In the Ugrian languages it has been superseded by the dental &c as 10, but it is preserved as an archaic 10 in 8 (2, 10) and 9 (1, 10) in the form mis. Aino has wam-bi &c 10. From the occurrence of the labial in the Chinese 100 and 10,000 (wan, ban), its presence in 8 is best explained as an archaic and obsolete unit applied to 10, and 100. The full term was probably similar to the Ugrian 8, kika-mis (2, 10), the Dravirian 9 om-bad (1, 10), and the analogous N. E. Asian and African terms. The Dravirian patta, bad &c 10, voddā 1 preserves a broad form of the labial unit similar to the Chinese

pat 8, and the Ugrian vate 5, vaike 1. The common Scythic form is the slender vit, vis, mis, bis, bir &c. [See the remarks on the labial definitive and numeral in the Dravido-Australian, Semitic-African and Scythic systems]

In some of the Tibeto-Ultraindian dialects a labial 10 and 5 are preserved. Undoubted instances of it are the 10 of Kasia shi-pon (shi 1, Chinese), Limbu thi-bong, Murmi chi-wai, Naga pan, ban, the Chinese form. In the higher numbers of Kasia and Limbu it is 10 (App. A p. 6), and Kumi also has it in the higher numbers *apong*. The Limbu and Kiranti 9 *phangsh*, *phangya* are probably remnants of 1, 10, as the Chinese 8 is of 2, 10 the numerals for 1 and 2 having been dropped. The labial occurs in 5 in several languages but in some at least it appears to be prefixal as in 4. In the Chepang *pu-ma-zho*, Shindu *me pa* the root is clearly *ma*, *pa* and it favours the opinion that the Thochu *wa* is also an archaic labial root. The Bodo *pa* may perhaps be placed with them, and not with the doubtful *bonga* Garo, *phong* Mikir, *manga* Singpho, *bang*, *pungu*, *phanga* &c Naga, *pan* Kumi, *bang* Magar, in some of which at least the root is the Chino-Tibetan *nga* (comp. Naga *pha-li* 4, *pha-nga* 5). The Murmi *chi-wai* 10 (i. e. 1, 10) is a compound similar to the Kasia and Limbu 10, but the labial has the form found in the Kambojan *ma-pai* 20 (i. e. 2, 10), Kumi *wai-re* 100, Sunwar *s-wai-ka* 100. The form resembles the Kasia variety of the Kol-Ultraindian 1, *wei*. The 5 of that system being *mon*, *mona*, *mun*, *mo* in Kol although not in the allied Ultraindian systems, it must be considered doubtful whether the Ultraindo-Gangetic labial 10, 5 &c, are referable to that system or to archaic Chino-Tibetan or Chino-Ultraindian labial numerals. Ultimately the Dravirian, the Scythic and the Chinese labial numerals are connected through an archaic Mid or N. S. Asian system.

TIB. *br-gyud*, *gye* Bhot., or-yet Gyar., *rh-jée* Hor., *khra* Thochu; *zibi* Manyak. In the Appendix the presence of 2 in most of the Tibeto-Ultraindian terms for 8 is indicated and they are considered as binary. The Bhotian term is left unexplained. From the Gyarung or-yet, Takpa *gyet*, it appears that the root is *yet*, corresponding with *ye* of the Bhotian *gye*. In *br-g-yud* the root must also be *yud*. This analysis is confirmed by the Himala-

yan and Ultraindo-Gangetic forms *g-ya*, *g-ye*, yet-*sh* (Limbu), *yoh*, *sh-yit* (Burm.) *ri-yat* Mru. &c. In all these forms the constant root is evidently yet &c, and yet itself is a variation of 2 (comp. in Limbu *nyet* 2, yet 8, Burman *nhit* 2, *sh-yit* 8; Horpa *nge* 2, *rhié* 8; Thochu *nga-ri* 2, *kh-ra-e* 8). In the Abor-Miri *pu-nit-ko*, *pi-nye* the 2 retains its full nasal form *nit*, *nye*. In Appendices A and C, I have considered this as 4 dual or 2d 4. From the analogy of the Chinese, Scythic and Dravirian terms it might be inferred that in all the Tibeto-Ultraiindian words for 8 in which 2 is the root or an element, the primary form was 2,10. Prof. Müller has pointed out that the Mikir *nir-kep*, 8, and *chir-kep*, 9, are formed from *hini*, 2, *ichi* 1, and *kep* 10. But the initial elements *br*, *rh*, *or*, *re*, *ri* in some of the preceding forms and the *pre*, *pra*, *pla*, *pi*, *pu* &c of other Ultraindo-Gangetic languages are evidently the *re* Manyak, *hla* Horpa, *pli* Takpa (*bzhi* Bhot., *di* Gyar.) of 4.\* Similar forms are common in the Ultraindo-Gangetic vocabularies (App. Four). The Bhotian *br-gyud*, Gyar. *or-yet* and all the cognate terms are thus 4, 2, (i. e. 4 the 2nd time).

The Manyak *zibi* appears to preserve the root for 4 only, in its primary Bhotian and Chinese form *zhi*, *si*. But for the analogy of the other languages and the occurrence of *zyi* in 40, it might be explained as a native quinary term (5, 3), 3 being *sibi* while 2 is *nabi*.

The formation of 8 from 4 is found in Yukahiri, Japanese and

\* If the Bhotian *br* stood alone it would be considered as a mere def. prefix, similar double prefixes being used with some other words. It is noticeable that it is not the current Bhotian *bzhi*; but that the numeral was at one time current in Tibet as *bri*, *bre* &c is evident from the Takpa and Gurung *pli*, Bodo, *bre*, Garo *bri*, Murmi *bli*, (in 8 *pre*) Magar *buli*, Newar *pi*, Lepcha *phali*, Chepang *ploi-zho*, Kiranti *la-ya* (*re-ya* in 8), Mikir *phili*, Dophla *a-pili*, Singpho *meli*, Naga *beli*, *pili*, *phali*, *Kami mali*, *Kumi palu*, Shindu *puli*, Sak *pri*, and the radical *hla* Horpa, *re* Manyak, *le* Sunwar, *lish* Limbu, *lika* Kuki, *lhi* Khyeng, *lit* Tunglu, *pi* Newar, *phi* Changlo, *a-pi-ko* Miri. It is probable from this wide prevalence of the form in Si-tan-Ultraiindian vocabularies that it was current for 4 and entered into the compound for 8 in the system of one of the more dominant and dispersive Si-fan tribes. It may have been communicated by it to Bhotian, but it is quite possible that both *bzhi* and *bri* forms were current as 4 in Bhotian dialects. The form *gyud*, *gyet* for 2 appears to be also a Bhotian dialectic variation. Bhotian is very prone to liquid augments, and in the current 2 *gnys* w. *nyi* o. the Chinese *n* of *ni* becomes *ny*. In the Manyak and Gyarung forms *na*, *nes*, the augment is absent. *Gyet* is evidently from a dialectic variation of *gnys*, contracted by the suppression of the nasal and the conversion of the final sibilant into a dental. The Lepcha full form *nyet*, probably an immediate derivative from the Bhotian dialect in question, and the Takpa *gyet* 8, and Gyarung *or-yet* 8, are also referable to it and not to the native forms of 2 (*nai* Takpa, *kanes* Gyar.) The spoken Bhotian *gye* preserves the same form contracted. The written *gyud* is a secondary dialectic variation, the original vowel being *i* *gnys*, *nyi* as in Chinese.

some of the Ugrian and Samoiede systems (e. g. Sam. sin-det, from side, 2, and tet, 4).

9. CHIN. kyeu, kieu, kiu, kau (Gyam. chyu); TIB. *dgu*, *guh*, *gu* Bhot.; *kung-gu* Gyar., *gubi* Many., *go* Hor., *rgure* Thochu.

The root is probably the unit in the guttural form found in the Mid and N. Asian systems as a variation of *ch*, *t*, *s* &c. It occurs in these systems in 9 by itself or with a root for 10 (i. e. 1,10; or 1 with 10 elided). Ugrian has *ok-mys* (1,10), *aktse* (akt 1), &c, Japan *ko-kono*, Koriak, Yukahiri, *chona*, *chonai*, (Kamsch. *koni* 1, Namollo *kule* 1). The first vowel of the Chinese is the same as that of *chit* 1, of the pronouns and demonstratives *ki*, *ti*, *chi* &c, and of the cognate Ugrian unit *ik*, *it* &c. But Chinese has also broad forms. The def. *ku* is used as a 3rd pron. in Kwan-hwa, and under the amplified form *khui* in Kwang-tung, in Shanghai it is "*that*", in Kwantung under the form *koi*, "*this*."

10. CHIN. *shi'*, *shih*, *ship*, *sip*, *chap*, *tap*, *chap*, *zeh*, (Gyami *ish*). TIB. *sih* Gyar., *che-chi-bi* Manyak (*che*, 1, a Chinese form, i. c. 1,10) *bcu*, *chuh* Bhot.

The *shi*, *si*, *ta*, *cha*, *chi*, *che*, of this term is the def. used for 1. The labial final may be a mere phonetic augment, but some of the Ultraindo-Gangetic forms are suggestive of its being a remnant of the labial unit used as 10. Kasia *thi-pon*, Limbu *thi-bon*. The final labial has been lost in the Tibetan terms, but it is found in Mikir *kep*, Kiranti *kip*, and Chepang *gyib-zho*. If the labial be neither a mere augment nor a separate root in Chinese, it may be a remnant of the def. postf. like *m* in *sam* 3, and thus be indirectly connected with the Manyak *chi-bi*.

The Horpa *sga* (*ska* in higher numbers) appears to be a broad form of *cha*. The *s* appears to be prefixal as in *z-ne* 7, (Gyar. *sh-nes*) in 9 of Bodo *chku*, and Garo *shku*, and in the other Ultraindo-Gangetic higher numbers which have *ta-*, *cha-*, *tha-*, *sa-* &c. The Garo *s-kang* 10 has the Horpa form.

The Thochu *hadure* is probably a corresponding form *hadu* with the pref. aspirated as in the Kami *hasuh*, and the root with the Bhotian vowel (*chu*, in the Changlo 1, *thu*).

The prefixes and postfixes of the Tibetan systems,—Bhot. *g-* (1, 2, 3), *d-* (9), *b-* (4, 7, 8, 10); Gyarung *ka-*, *ku-*, *kung-*; *k-*, *kh-*, *kha-*, *ha-*, *r-* [= *d-* Bhot.]; Manyak *-bi*, Thochu *-re*, *-ri*,—are not of Chinese origin. They belong to the Scythic and proto-Scythic (Yeniseian, N. E. Asian, Caucasian) connection of the formation, and have been added to the Chinese roots. The Manyak and Thochu in the regular use of a qualitative postfix are Tibeto-Scythic. The Gyami *-ku* is the Chinese segregative. The segregatives vary with the class of the substantives enumerated and not with the numeral.

The Tibetan systems present some of those irregularities which evince the long prevalence and partial blending of different dialects, but with the exception of the Bhotian 7, all the numerals are referable to the Chinese system. Close representatives are current of most of the Chinese numerals, not in the modern diffusive forms of the Kwan-hwa found in Gyami, but in the forms in which they are still preserved in the least abraded Chinese dialects as the Kwangtung. It is probable, however, that some of the variations from these forms are not purely local, but are archaic Chino-Tibetan, and indicate the existence in China of more than one dialectic system of numerals when they were first spread westward into the Tibetan province. The Tibetan 7 and 8 must have been derived from a dialect distinct from the single one which now prevails throughout all the Chinese provinces. They are pure Chinese in roots, but the one is quinary 2 (for 5, 2), and the other binary 2, 4, whereas the current Chinese is ternary in 7 (1 for 6, 1), and apparently denary (10 for 1, 10) in 8. Both Chinese and Tibetan are denary in 9.

As all these methods are found in the other numeral systems of Eastern Asia, and as the union of all tribes of China into one nation is a historical event, it is probable that in archaic times several similar divergent systems existed in the Chino-Tibetan region. The first introduction of Chinese numerals into Tibet may be equally ancient with that of the pronouns and definitives, which also show some dialectic variations of an archaic Scythic kind. In other words, the tribes that gave a Chinese formation to Tibet may not have separated from the cognate Chinese tribes till some at least of the numerals were in use.

When we test the Chino-Tibetan numerals by their relationship amongst themselves and to the current definitives, they are found to be less regular and homogenous than many of the other systems of Asia, Africa and Asonesia. Many of the Scythic and N. E. Asian systems are less disorganised. But in these, irregularities of the same kind occur, and the Chino-Tibetan system, if considered as only the last remnant of several dialects that existed from a very remote era and borrowed from each other, will take its place with those Scythic ones which have been most changed by a similar cause. The liability of numerals to be displaced by the roots and forms of other dialects is fully illustrated in the sections on the Dravido-Australian, Semitico-African, Indo-European and N. E. Asian numerals, and even in the limited Tibetan field we have found some examples. Thus in Gyarung 2 has one Bhotian form, nes, in 2, and another, yet, in 8; while 4 has a native variation di, in 4, the Takpa form pli in 40, and a third variation, or, in 8. Manyak has one variation of the Chinese 4 in 4 re, but preserves the common Chino-Bhotian form in 8 zi, and 40, zyi; it has a peculiar form of the Chinese 1 in 1 ta, but possesses the Chino-Tibetan in 10, chi.

The archaic Chinese numeral systems were evidently closely related to the archaic Scythic or proto-Scythic. They were not mere derivatives of the Scythic nor the converse. They go back to the period when the Asiatic systems were little dispersed geographically, and some of the extant forms resemble those of the remoter Scythoid languages—as those of N. E. Asia,—and those found in formations of which the connection with Scythic is very archaic,—as the Caucasian and Dravirian.

The roots are all or nearly all current as definitives, and both the definitive and numeral systems of Chinese proper are remarkable for the secondary rank which the labial holds. But there are strong grounds for believing that in the primary eras of the Chinese glossaries, as in those of the more advanced formations, it held at least an equal place with the dental &c. The Australo-Kol, the African, the Dravirian, the Scythic and N. E. Asian, and the Chinese, illustrate various stages in the decadence of the labial. The monosyllabic dialects that have been transmitted in the basis

of the Indo-Australian and African glossaries probably separated from the Mid-Asiatic linguistic province before the dental began to predominate as a definitive and unit. It may be remarked that languages and formations that have lost the labial as a 3d pronoun preserve it as a demonstrative, and even when it is no longer current as a demonstrative, it sometimes lingers as an interrogative, relative &c.

The existing Chinese has doubtless suffered great changes during the period in which the various harmonic formations have been developed and dispersed, and these changes must have been chiefly glossarial. It is consistent with the history of all formations that primary or archaic vocables and forms should sometimes be found best preserved in those languages and families that were earliest removed from the primitive ethnic location. In the continued mutual linguistic influence of the East Asiatic tribes, Chinese and Scythic, changes have probably taken place in the glossaries of all the less secluded nations, from which the Dravirian, Asonesian, African and American remain free.

*Sec. 5. THE MISCELLANEOUS GLOSSARIAL AFFINITIES OF THE TIBETAN DIALECTS AMONGST THEMSELVES AND WITH CHINESE AND SCYTHIC.*

A glance at Mr Hodgson's tables shows that the Tibetan vocabularies are all intimately connected. Comparing the western or Bhotian with the eastern or Si-fan we find that in the list of 60 or rather 58 miscellaneous vocables,\* Bhotian has about 24 in common with Thochu, 33 with Gyarung, and 26 with Manyak. The agreement is thus from 30 to 60 per cent. The adjacent Horpa has 36 of the 58 words Bhotian.

Of 59 Bhotian vocables only 7 are not found in any of the other Tibetan vocabularies (8, 24, 30, 41, 45, 46, 50). Of the remainder, 7 are found in all the other vocabularies (2, 7, 20, 26, 42, 48, 51); 3 in Horpa, Thochu and Gyarung (15, 27, 56); 1 in Horpa, Thochu and Manyak (3); 2 in Horpa and Thochu (1, 25); 7 in Horpa, Gyarung and Manyak (6, 14, 19, 29, 37, 38, 54); 6 in Horpa and Gyarung (12, 17, 21, 36, 40, 60); 5 in Horpa and Manyak, (22, 28, 32, 33, 52); 5 in Horpa (16, 23, 39, 44, 55); 2 in Thochu, Gyarung and Manyak (31, 47);

\* For the words corresponding with the numbers see Vocabulary *ante*, p. 188. In some of the Tibetan lists two and even more words are deficient.



4 in Thochu and Gyarung (11, 13, 57, 59); 1 in Thochu and Manyak (34); 3 in Thochu (9, 43, 49); 1 in Gyarung and Manyak (4); 3 in Gyarung (18, 35, 53); and 2 in Manyak (5, 10).

The Chinese affinities with the Tibetan vocabularies collectively are considerable. About 31 of the Chinese vocables in the list are found in one or more of the Tibetan vocabularies (3, 4, 5, 6, 10, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26, 33, 35, 39, 40, 44, 47, 52, 55). With single vocabularies the agreement is much smaller. Bhotian has about 14 Chinese words, Horpa 10, Thochu 8, Gyarung 12 and Manyak 6. The extent to which the same Chinese vocable has been diffused or preserved in several of the Tibetan dialects may be seen from the subjoined statement which, like those that follow it, is not to be considered as minutely accurate, the object and the value of comparisons on so limited a scale not rendering rigid precision worth the labour of attaining it. Several of the Chinese words are obviously of modern importation, a consequence of the great political and social influence the Chinese have long enjoyed in Tibet and their constant intercourse with the Tibetans. The proportion of vocables archaically common to the two families cannot be ascertained, without larger and more exact comparisons, but many of the common words in the list are certainly archaic. Some are found as roots with variable forms and meanings in all the S. E. Asian vocabularies.

Of the 60 words Chinese has 1 in common with Bhotian, Horpa, Thochu, Gyarung and Manyak (20); 1 with B., G. and M. (47); 1 with B., H. and G. (17); 1 with B., H. and M. (4); 1 with B., T. and G. (13); 4 with B. and H. (23, 25, 39, 40); 2 with B. and G. (37, 59); 3 with B. (6, 33, 49); 1 with H., T. and M. (10); 1 with H., T. and G. (18); 1 with H. (5); 3 with T. and G. (15, 18, 55); 3 with T. (22, 35, 44); 5 with G. (5, 12, 16, 26, 52); and 2 with M. (21, 55);—being 25 vocables in all.

The Scythic ingredient is much larger and more important than the Chinese. Bhotian has at least 29 or 30 Scythic roots in 78, that is about 40 per cent (1, 5, 7, 10, 12, 14, 15, 19, 20, 21, 25,—two roots, three if one common to Chinese be included—26, 27,

29, 33, 35, 37, 38, 39—two roots,— 43, 46, 48, 50, 52, 53, 54, 56). Horpa in about 60 words has 20 of these Scythico-Bhotian vocabularies and 9 other Scythic roots (30, 34, 35, 43, 46, 50, 53, 57, 59) making about 50 per cent. Thoehu is much more independent of Bhotian and Horpa in the range of its Scythic affinities than these are of each other. It has only about 9 of the Bhoto-Scythic roots, but it has 16 others, some of which occur in other Si-fan vocabularies or in Horpa, although most are peculiar. Gyarung has 6 non-Bhotian Scythic vocabularies (1, 23, 39, 43, 49, 52) and most of them are Turkish. The connection thus indicated must be modern compared with that in which the Tibetan affinities with Samoiede, Fin and other remote Scythic languages originated. The special influence of Turkish on the Gyarung is further shown by the Turkish forms found in those Ultraindian vocabularies that are most allied to Gyarung. The Turkish words have frequently slender vowels, e. g. *il wind*, Gyar., Burman & *o li, le air*; *tin, night*, G. *to-di*; *diri, tire, skin*, G. *ti-dri*. Manyak has 4 Turkish words, 3 Mongolian and about 9 more remote and non-Bhotian Scythic.

All the vocabularies have a few Turkish and Mongolian terms, the close accordance of which with forms current in these groups, indicates that they have been communicated to the Tibetan tribes by their Tartar neighbours during the latest era of Scythic history or that in which the Turks and Mongols have marched with the Tibetans and spread themselves into their province. The Turkish words are more numerous than the Mongolian and this is probably to be ascribed to the fact of Turkish predominance in the northern borders of Tibet having preceded the Mongolian and endured for a much longer period. The numerous Turkish forms in Ultraindian and Asonesian vocabularies corroborate this inference. There are a few Tungusian terms but it is doubtful if they are to be distinguished from the general mass of Scythic words, which form a large and essential ingredient in all the Tibetan vocabularies. These Scythic roots are archaic and they are in general found in remote N. and N. E. Asian vocabularies. They are chiefly Ugrian (Yeniseian, Samoiede, Ugrian proper, Fin), but some are also Yukahiri, Aino-Kurilian and Kamschatkan.

This class of affinities may embrace eras as long as all the later

ones (Chinese, Mongolian, Turkish) down to the present time, but we must in the actual state of ethnology be content to refer all these remote affinities to one nebulous archaic period which we may term the Ugro-Kurilian or simply the Ugrian. Further research will probably distinguish the Samoiede, the Yeniseian &c from more ancient affinities. A considerable portion of these archaic affinities embrace also Iranian, Caucasian, Semitic and African languages. From their forming so high a percentage, and being the most important of all the ingredients of the Tibetan vocabularies, they clearly connect the history of the Tibetans with that of the ancient Ugrian race, which prior to the predominance of the Tatar branch appears to have spread not only over the whole breadth of Asia and Europe from Kamschatka and Korea to Lapland, but to India, Irania, the Caucaso-Semitic province and N. Africa, for their vocables are abundantly dispersed over this wide region in languages belonging to various formations. So great must be the antiquity of this cardinal ethnic movement that the origin of the Iranian formation itself in its Scythic basis, may be referred with probability to it. The Mid-Asian affinities of Iranian are Ugrian much more than Tatar.

The large Scythic ingredient in the Tibetan vocabularies when taken in connection with the Scythic character of the ideology, reduces the enquiry into the more archaic history of the formation to this,—were the Tibetan languages originally Scythic or were they crude monosyllabic tongues akin to Chinese? To answer this question we must take the position and character of the Burman branch of the alliance into account, and it leads us to the conclusion that the archaic or pre-Ugrian languages of the Tibeto-Chinese province were closely allied to the Chinese and the crude proto-Scythic; and that they were partially transformed by Scythic nomades advancing into the province and blending with the native tribes, after Scythic had acquired its harmonic and inversive character. At the same time many of the common roots must be considered as of equal antiquity in Tibeto-Burman and Scythic. The Mon-Anam race was probably identical with the ancient Tibeto-Burman, for there was hardly room for another between them, and the languages have some non-Chinese traits in common, as the position of the qualitative after the substantive, the use of prefixed or

preposed definitives, besides possessing many common roots. It is probable that the Mon-Anam was at a comparatively early period pushed to the southward, although not before it had received a considerable portion of Scythic vocables. The Tibetan miscellaneous vocabulary, like the pronouns, and the general ideologic character of the formation, show that it is Chino-Scythic.

An examination of the vocabularies separately gives the following results.

In the Bhotian list we find about 14 vocables with Chinese affinities; 6 with Turkish; 3 with Tungusian; 20 with more remote Scythic and N. E. Asian languages which may be termed Ugro-Kurilian; and 18 which I class as peculiar, simply because I have not ascertained any foreign affinities, but many of which will probably prove to be Ugro-Kurilian.

The Horpa vocabulary differs little from the Bhotian, at least 36 of the 58 words are Bhotian, and 4 of the others are also Bhotian in root; 4 are Chinese (besides 6 which are Bhotian also, making 10); and 18 are neither Bhotian nor Chinese, although 4 of them have Bhotian affinities. Several of the others are Scythic. The Bhotian vocables have, in general, the same form as in Bhotian, but they are softer. Thus *rog ant*, *phag hog*, *metog flower*, *lag hand*, discard the final *g*. In some cases the Horpa form is broader, *e. g.* *rum horn*, *mah fire*. Most of the Horpa forms are found in the Si-fan or Ultraindo-Gangetic vocabularies. *S-gre star*, is a slender form found in Burman *kre*, the Bhotian and Manyak being *s-kar-ma*, *krah*. *Phri snake* is a similar slender form of the Bhotian *s-brul*, Manyak *bru*, *Takpa mru*. It is also Thochu *bri-gi* and Gyar. *kha-bri*. Where the Horpa form differs from the Bhotian and has special Si-fan or southern affinities, these are indicated in the subjoined list.

Thochu has 24 or 26 words in common with Bhotian, and 3 with Chinese in addition to 5 Bhoto-Chinese. Of the 35 remaining vocables at least 13 (4, 19, 21, 23, 25, *a* and *b*, 23, 27, 30, 37, 38, 40, 46) are Scythic. They are nearly all archaic, that is they are not derivatives from the adjacent Mongolian or Turkish, but belong to the primary Scythico-Tibetan stock. Some preserve

forms now found in the more remote or sequestered branches of the Scythic and N. E. Asian family, Samoiede, Yeniseian, Aino &c. When to these we add the Scythic affinities of the Bhoto-Thochu words it will be seen how slight the Chinese glossarial ingredient is when compared with the Scythic. The Thochu forms of the common roots differ considerably from the Bhotian. They are frequently slender and curt, e. g. 7 ri, B. rus, ru; 15 zi, B. sa; 26 pi, B. phag; 31 ki', B. khyim; 47 ri, B. lam; 48 che', B. chha; 49 pi, B. pag; 51 bri, B. brul. In some cases the Thochu forms resemble the Manyak and not the intermediate Gyarung. *Sky*, mah-to, ma'; *Stone*, ghol-opi, wobi; *Blood* sa', sha'; *Goat*, tsah, tsah; *Light* uik, wu'; *Salt*, che', che; ?*Skin* ra-pi, g-ra. The vocabulary has numerous southern affinities, but fewer than Gyarung and Manyak.

The Gyarung list has 33 words in common with Bhotian, including Bhoto-Chinese words. 5 with Chinese not found in Bhotian (besides 7 Bhoto-Chinese) 4 with Turkish, only 2 apparently with Ugro-Kurilian which are not Bhotian also, and 16 peculiar in the above sense.

The Manyak list has 26 Bhotian words, 3 Chinese (besides 3 Bhoto-Chinese) 4 Turkish, 3 Mongolian, 9 Ugro-Kurilian and 14 peculiar.

I proceed to illustrate the preceding statements by some details.

The Bhotian words in the list of 60 miscellaneous terms, which as some have synonyms and others differ in the old or written and the current or spoken dialects, amount to 78, may be arranged under five classes. *First*,—Words that are apparently peculiar to Bhotian. These amount to about 18 or 23 per cent of the whole, but as there must be many Mid and North Asiatic vocabularies, not collected or not accessible to me, and as even Klaproth's want some of the terms in the list, it is probable that this proportion would be much reduced by a more ample collation of vocabularies. *Second*,—Words having affinities with Chinese, mostly archaic, but one or two appear to have been received from it since the Chinese spread into Tibet. These amount to about 14 (18 per cent). *Third*,—Turkish words, probably derived from the Turkish hordes during their 2000 years of contiguity and partial intermixture with the Bhotians and only amounting to 5, one being Mongolian as well as Turkish.

*Fourth*,—3 Tungusian terms, probably archaic Scythic. *Fifth*,—archaic Scythic or Upper Asian. These vocables amount to 29 or 30, without reckoning those Scythic words which are Tungusian or archaic Chinese, which would give 5 more. According as we include or exclude the latter the percentage will be 37 or 44, in the last case about double that of the apparently peculiar Bhotian vocables.

#### COMPARATIVE VOCABULARY OF BHOTIAN.

##### a. Chinese.

4 *Bird*,—Spoken dialect chya. (Sunwar chiva), Chin. chio &c.  
6. *Boat*:—Spoken, syen; Naga ihseng, Ch. ch'hiang. 13. *Dog*:—khyi; (com. Tibeto-Ult.); Ch. khiau (Burm. chhang, shen). 17. *Elephant*:—glang-chen, Ch. chhiang. 20. *Fire*.—me, mi, ma; Ch. we. 18. *Eye*:—mig, mik; Ch. mok. 23. *Foot*:—kang; Ch. kha. 25. *Hair*:—pu; Ch. bo (Fin has *up*, but as there are two other Tibetan synonyms for "*hair*," kra and ta, pu is probably Chinese). 33. *Leaf*.—s. hyo; Ch. hio. 39. *Mountain*:—ri; Ch. lia; Tungus. alin (allied forms in Mong. and Fin) (a). 40. *Mouth*:—kha; Ch. khau. 47. *Road*:—lam, lan; (Newar lon, Sunwar la) Ch. lu, lau. 49. *Skin*:—pag (b); Ch. phi, phue. 57. *Tree*:—jon-shing; Ch. shi, chang &c. (also Kamsch., Yenisei, Sam., Cauc.) 59. *Water*: chhu; Ch. chui, shui &c., (Sam., Ugr., Tatar, Afr.)

##### b. Turkish.

30. *Horse*:—ta; T. at. 34. *Light*:—hod; T. syod. 39. *Mountain*:—West Tib. dak; T. tak, Japan dake. 43. *Night*:—tshan, chen; T. achsham, Mong. suni; allied forms in Semitic, Malagasy &c. 46. *River*:—tsang, chang; T. usun, sug; Mong. chun, usun &c. Ugr. jugan, Pashtu sean, sin, sint.

##### c. Tungusian.

10. *Cow*:—s. pha chuk; Tung. chyhun. 12. *Day*:—nyin; T. ininy, manyi. 54. *Sun*:—nyi (See "*Day*").

##### d. Ugro-Kurilian.

1. *Air*:—lung. The Ugro-Scythic forms of this root when used for "*air*" are slender, but the Ugrian *lun* "*day*" preserves the

(a) Takpa ri, Horpa ri-rhap.

(b) Takpa phyekh.

full Tibetan form. 5. *Blood*:—khrag; Ugr. wuorak; Saumali, Galla dik, diga (the root is also current as *water*.) 7. *Bone*:—rus-pa, ru-ko, lu, lu-k, lush-am, lush-yn, by Ugro-Fin, lay, by Sam. Semitic alam, alat, Pashtu lu, ro, ra, re, alukei, Drav. yelu &c, Iesgian. 10. *Cow*:—lang; Fin lehmü; Cauc. al; Galla, Amh. lam &c. 14. *Ear*:—na; Cauc., en, in (*Face, Mouth, Nose* &c in Scythic). 15. *Earth*:—sa; Sam. -ja; Zend sa; Horpa zi-p, Gyarung se', Ch. ti, Jap. zi, tsi. 19. *Father*:—pha; Sam. &c &c (com.) 20. [*Fire*:—ma, me; Aino abe, Chin. we; (Jap., Ugr., Tumali, Malagasy &c have allied forms.)] 21. *Fish*:—nga, nya; the guttural form ka of Naga, Anam, Mon &c appears to connect the root with the Fin kal, Sam. kual. [24. *Goat*:—ra; Semitic-African aron, illa &c.] 25. *Hair*:—kra: Fin karn; Aino karnu. 25. [*Hair*:—pu; Fin up, Ch. bo]. 25. *Hair*:—ta; Fin ata. 26. *Hand*:—lag; Ost. lagal Turk. ilik. 27. *Head*,—go; Ostiak og. [28. *Hog*:—phag; Iranian, Drav.] 33. *Leap*:—loma; Fin lopa. 35. *Man*:—mi; Fin mis; Galla mi; Zend memio. 37. *Moon*: la, da; Koria oru, Chuk. iraluk, Sam. iri. 38. *Mother*:—ama; Yukahiri, Yenis. Fin, Samoide and common in other alliances. 40. [*Mouth*:—kha; Ch. khau, Yenis. ko, gou, khan, Sam. ake &c Semitic kho] 48. *Salt*:—tsha, chha; Ugr. sow, sal &c, Sam. si, sir, sak &c (also Iran., Semit., Afr.) 50. *Sky*:—nam; Sam. nom, num, nob. (Ugr., Semit. Kashm.) 52. *Star*:—kar; Korea kurome, Koriak agor, (Iran., Afr.) 53. *Stone*:—do; Korea tu; Ost. to. [55. *Tiger*:—tag, tak; Iran. tigris &c] 56. *Tooth*:—so; Japan cha, ha. In Ugro-Fin the sibilant root is *Head, Eye, Hair, Mouth, Ear*. The Bhotian so is closest to the Fin su *Mouth* (Chinese sui &c). The root is *Tooth* in Caucaso-Semitic and African vocabularies dsa &c Circ., sila, zul-we, sol-nol &c Lesg., sin, sin-on, &c. Semitic (sil, sin is *Eye* in Scythic, sun *Mouth*, shun *Ear* &c.)

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## NOTICES OF SINGAPORE.\*

1819.

Sir Stamford Raffles on arriving at Pinang in March, on his way to Acheen, sent down building materials, tools, chankols, &c., to the value of... .. Dollars 2,143 10  
Provisions, ghee, biscuits, bullocks, &c.... .. „ 3,334 54

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Dollars 5,477 64

29th May.—The Revd Mr Milne, of the Anglo-Chinese College, Malacca, applied for ground to build on.

The Revd Mr Milton, the first missionary sent out by the London Missionary Society, established a school for Chinese and Malay children. Sir Stamford Raffles gave him 150 dollars, in consideration of his performing the usual services, &c.

In laying out the town, six building lots were reserved by Raffles—1 for Carnegy & Co., 1 for F. Ferrao, 1 for T. Macquoid, 1 for Captain Flint, and 2 to be disposed of by Raffles himself. 12 lots along the North Beach were only to be sold to Europeans. 6 were disposed of as above, and the other 6 were to be sold on application.

4th June.—The Rajah of Tapamana writes to the Sultan of Johore, that the Rajah Mudah of Rhio has gone over to the Dutch, and is against his countrymen. The Rajah asks the Sultan to join forces and drive the Rajah Mudah and the Dutch out of the place, and to instal a new Rajah Mudah, and to be careful above all things not to let him levy heavy duties.

16th June.—The Resident (Farquhar) writes to request that some arrangements may be made at Singapore, as otherwise in the event of anything occurring to him, the settlement would be left in charge of Mr Montgomerie, a very young Assistant Surgeon.

June.—Mr Garling, of the Bencoolen Establishment, was sent on a mission to Pahang. He was directed to return, and Mr D. Napier, who was then expecting an appointment as writer in the Bencoolen service, was directed to be sent to Pahang as Resident.

\* The following additional notices regarding the early history of Singapore, will be found to contain much curious information not included in the notes previously given.



On the 6th of July, Captain Maxfield, in a letter to the Resident, pointed out the existence of a good harbour between Point Romania and the Island.

August.—An invoice of civil stores, amounting to dollars 42,963, was sent from Bencoolen. Many of the articles are stated to stand in the books at rates far beyond their value, and the Resident is instructed if possible to sell them for prime cost and charges, if not they can be reduced to the level of prices at Pinang and Batavia.

Mr Dunn, a Gardener, arrived with letters of recommendation from Raffles, and with a supply of spice plants, which were planted out on the Government Hill.

2nd September.—Teluk Blanga (New Harbour), is first noticed as a secure harbour.

2nd November.—The Resident proposes to appoint an officer to act as Registrar of the Court of Justice.

2nd November.—The Resident (Farquhar) proposed to put restrictions on the sale of opium and spirits and on the practice of gaming, to sell the exclusive rights and to apply the proceeds,  $\frac{1}{3}$  to the Sultan,  $\frac{1}{3}$  to the Tumongong,  $\frac{1}{3}$  to Government, the latter  $\frac{1}{3}$  to pay Police, allowances to the Captains of Tribes, &c.

A Bugis prince was summarily put to death by the Dutch at Rhio for alleged treason. His brother Balana rebelled and when finally driven out of Rhio took refuge in Singapore with 500 of his followers. The Malacca authorities demanded the person of the prince, but the demand was rejected by the Resident (Farquhar). Refusal approved of by the Supreme Government.

A letter from the Supreme Government, dated 15th October, contains the following directions regarding the Government Establishments:—

The Resident's salary to remain as fixed, but his successor to be Commandant, with Staff pay for civil duties.

Assistant to the Resident to be discontinued. Store-keeper and Master Attendant to be united on 150 dollars salary.

The Resident to take charge of Pay Office.

Mr Read, of the Bencoolen Service, may stay till required at Bencoolen.

Resident's Establishment pay 130 dollars.

Master Attendant 110 dollars.

A subsequent letter, dated 11th January 1820, directs the Resident to take the Police and Magistrate's duties; and remarks that Singapore is to be considered rather as a military post than as a fixed settlement, that artificial encouragement is not to be given to the immigration of natives, that if many people settle a magistracy may be formed if necessary, and moderate import dues fixed, taking care to prevent shackles to trade. Commerce, which forms chief object of eastern settlements, not to be lost sight of in local revenue, but if a revenue can be had then it ought to be levied.

No. 1.

From the Tumongong Abdulrahman, residing at Singapore. To the Iang De Per Tuan Mudah of Rhio. (Tuanku Jaffar, the Rajah Mudah).

After compliments,

Your son informs his father that a party of English, having at their head Mr Raffles and the Resident of Malacca, arrived at Singapore; the latter went on to Rhio, the former remaining. Their coming was quite without your son's knowledge, and it is by compulsion only that he has been necessitated to admit them to reside at Singapore, for he could not prevent their landing their men and stores, and proceeding to establish themselves, by constructing quarters, as they consulted their own inclinations only. At this time your son Tuanku Long\* arrived from Rhio, having been surprized by the reports of the arrival of so many vessels and ships at Singapore. As soon as he landed he met Mr Raffles, the latter forcibly laid hold of him, and declared him Rajah, giving him the title of Sultan Hussain, and confirming the same by a written instrument (chop). Your son was thus compelled to a compliance with all their wishes.

No. 2.

From the Iang De Per Tuan of Singapore (Hussain). To the Iang De Per Tuan Besar, Sultan of Ling (Abdulrahman).

Your elder brother informs his younger brother that, by the dispensation of Almighty God towards his slave, things have turned out entirely beyond his previous conception. Abang

\* Otherwise called Hussain.

Johor, being deputed by the Tumongong, came in the middle of the night, and acquainted him that a great number of vessels had lately arrived at Singapore, and, without the Tumongong's consent, had landed a large party of soldiers. Your brother was thrown into great agitation and perplexity of mind by the suddenness and unexpected nature of the intelligence, and apprehensive only for the safety of his son, (who was at Singapore) without reflecting, he forthwith quitted Rhio without giving notice to his father and mother\*. As soon as your brother arrived at Singapore he was met by Mr Raffles, who immediately laid hold of him and declared him Rajah. Your brother had no choice left; indeed, being in the power of Mr Raffles, what could he do. He was therefore necessitated to fall in with the views of this gentleman, had he not complied his ruin must have followed, as my brother will know. Although your brother may (seem) to comply with their views, never fear, nor entertain the least suspicion that he intends to do anything that will cause future ill or animosity. God avert this! Such was your brother's situation, for being in the hands of the English, they would not let him go: they even refused his request to return for a short time to fetch his wife and children, desiring him to send for them.

Written at Singapore, 20th day of the month Rabil Akir, in the year of Mahomed 1234.

No. 3.

From the Iang De Per Tuan of Singapore (Hussain). To the Iang De Per Tuan Mudah of Rhio (Tuanku Jaffar).

After compliments and formalities,

Your son informs his father that Abang Johor arrived in the middle of the night, and acquainted him that several ships had lately arrived at Singapore, and disembarked soldiers and stores. Being greatly surprized, perplexed and agitated by the suddenness of the news your son quitted Rhio that very night, scarcely possessing the use of his senses, without giving his father and mother notice of his departure. On his arrival at Singapore he met Mr Raffles, who forcibly detained him and made him Rajah, by the title of Sultan Hussain Mahomed Shah, giving him a patent or chop to that effect. Your son now begs pardon,

\* The Putri (widow of the late Sultan Abdulrahman) and Rajah Mudah.

assured that it will be granted, both as it respects this and the world to come. Your son will never lay aside his respect for his father. With regard to your son's family, Mr Raffles requests they may be sent to Singapore, and Rajah Tuah and Inche Saban are sent for the purpose of escorting them hither, and farther, Inche Saban will receive charge of all the property inherited from his late father, whether it consists in duties received from China vessels, or from the China bazar, or from the Custom House. These are required to pay your son's debts and defray the expences of removing his family. Your son puts his trust in Almighty God and his Prophet, and then in his father, under all circumstances (meaning the Rajah Mudah).

1820.

One of the objections to the settlement at Singapore started by the dissatisfied in Calcutta, that the harbour was not defensible, was answered by the Resident (Colonel Farquhar) by a denial of the assertion and by pointing out that New Harbour was capable of containing the largest ships, while smaller vessels could take refuge in the Singapore river and at Sandy Point, all these places being easily defensible. (The Resident did not foresee the crowd of vessels which now fill the open anchorage). Some of the Pinang merchants recommended the Carimons and Col. Farquhar was sent to visit those islands. Singapore it was said commanded only 1 entrance to the Straits while the Carimons command 4,—Sabon, Dryon, Old and New Singapore Straits.

20th March.—Sir T. S. Raffles writes to the Resident (Colonel Farquhar)—“if the arrangements contemplated by you (for raising revenue on the retail sale of opium and spirits) be on the farming system of Pinang and Malacca, I can have no hesitation in saying that the same is highly objectionable and inapplicable to the principles on which the establishment at Singapore is founded.”

Price of flooring tiles 13 dollars per 100

„ roofing do. 13 do. „ 100

Captain Travers was appointed on the 24th March, to relieve Col Farquhar as Resident, but the Colonel withdrew his resignation.

Complaints had been made about undue restrictions on trade. The Resident called a committee to enquire into the case and they reported 19th April:—that there were no grounds for the

complaints, that formerly native vessels made presents to the Sultan and Tumongong, but that this practice had been discontinued and that the only impost now permitted were a small tax for the Master Attendant's (Bernard) stationery, as follows.—Dues on Port Clearances for a 1 coyan boat 1 fanam, 8 doits, 2 coyans double, and so on up to 5 coyans and upwards which were charged 2 dollars. It was suggested that the practices complained of by the merchants were carried on without the knowledge of the Resident by the subordinates and they certainly were continued, for Raffles found it necessary to publish a proclamation on the subject on the 21st November 1822 (see *Journal Ind. Arch.* vol. vii. p. 335).

Captain Flint, of the Royal navy, arrived on the 24th April and took charge of the office of Master Attendant on a salary of 250 dollars, establishment 181 dollars.

*Port charges from 1st May of this year.*

400 tons and upwards.....	10	dollars.
under 400 tons.....	8	„
Brigs.....	5	„
Native craft above 20 tons .	4	„
do. „ „ 5 coyans	2	„ fanams doits.
do. „ „ 4 „	1	„ 16 „ 2 „
do. „ „ 2 „	0	„ 21 „ 6 „
do. „ „ 1 „	0	„ 10 „ 8 „

1st May.—New regulations issued this day for the farms. 2 opium and 2 arrack shops were permitted in Campong China—1 opium and 1 arrack shop in Singapore town and 1 opium shop in Campong Glam. Gaming tables were placed under the special supervision of the China Captain and a tax levied on each, the proceeds of this tax to be applied to keeping the streets clean. The farm revenue was kept as a separate fund applicable to local purposes and remained so till May 1823, when the collections were ordered to be paid into the Treasury.

5th May.—First regular police establishment proposed as follows:—  
Superintendent of Police and Assistant to Resident 200 dollars.

1 Constable .....	25	„
1 Jailor.....	10	„

1	Native writer.....	10 Dollars
1	Tindal .....	7 "
8	Peons at 6 dollars each.....	48 "

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Total Dollars 300

First Farm Revenue (4 opium shops 395, arrack shops 160, gaming tables 95) distributed as follows :—

Paid police..... \$300

„ Sultan and Tumongong for assisting in police duties. 325

A petition, dated 18th Dualkaida 1235 (9th September 1820), from the Sultan, Tumongong and representations of all the tribes in Singapore, was presented, stating that they had heard reports that Singapore was to be given up and they now earnestly beg of government not to give the place up to the Dutch “from whom God defend us.” They attribute much evil to the Rajah Mudah of Rhio, with whom Colonel Farquhar made a treaty but who afterwards went over to the Dutch. They also beg Captain Mackenzie (the head Assistant and Secretary at Bencoolen, then on his way to Bengal) to take charge of their petition and present it to the Governor-General.

17th November.—The Supreme Government regrets to observe the very heavy expences, requires detailed report on public works, and deprecates expences under present circumstances of settlement. In a previous letter, 20th October, the Secretary quarrels about a shroff and 2 lascars in the store department.

The Governor-General of Java complains to the Governor-General of India that the Tumongong, with the sanction of the Singapore authorities, sent a letter to the Sultan of Sambas exciting him against the Dutch. The Resident (Col. Farquhar) denies the charge. The Governor-General writes that he is anxious to prevent any fresh misunderstanding, as commissioners are engaged at home in looking into the differences between the Dutch and English in the Eastern Seas.

1821.

12th January.—The public works valued at 29,450 dollars, cost Government 35,575.

February.—The first junk from Amoy arrived. The Nacodah was seized and put in the stocks by the Sultan's people, because

he refused to wait on the Sultan with presents. The merchants remonstrated. The Resident in writing to Raffles, says, it was "an improper, premature and very unnecessary interference on their part." The Sultan on being applied to, excused himself by saying the Nacodah was impudent.

20th March.—At a meeting held this day, A. L. Johnston, Esq. in the chair, it was resolved to subscribe to increase the police force, and at another meeting, held 18th September, the proceedings of last meeting were confirmed, and it was resolved that the present police force is sufficient, and that the Resident be requested to invite the inhabitants of Campong Glam and China Town to subscribe.

3rd April.—Replying to the Resident's letter reporting on police, robberies &c Raffles suggests the propriety of appointing a committee of European gentlemen, whose duty it would be to suggest general regulations for the better order of the town and the more efficient security of property, and to superintend such regulations as may be passed by government. Members to be elected quarterly or yearly, subject to confirmation of Resident. In reply, the Resident says robberies are not numerous, only two having occurred of any consequence. A committee of European and Chinese merchants was instituted some time ago to keep up night watch by private subscription. The Resident now suggests that the watch be taken over and paid out of the license fund. Raffles afterwards carried out his views on this head. See the first list of Magistrates, *J. I. A.* vol. vii. p. 335.

17th April.—Report of the Resident as to the town and public works. At first the place was covered with jungle, with the exception of a small spot on the eastern bank of the river, barely large enough to pitch the tents on. The sepoys were employed to clear a space for cantonments, and a battery was raised also by them. Ground was then cleared for the Chinese and Bugis campongs. The bridge was postponed but materials were collected. The powder magazine and other permanent buildings postponed.

Reservoirs were made for the supply of water to the shipping and town, and greater facilities existed in this respect than in any other town in India. Proposed to levy a tax on the supply of water.

The banks on the N. side, was the only place eligible for English merchants, the other side being marshy and unfit for building. Proposed to set aside a place for the merchants between the Tumongong's campong and the sea, but as the space was limited proposed to remove the Tumongong higher up the river. Except these lots and one on the sea side of the road, used for the Police Office, no grants were made on the Singapore side, and the squatters were informed that they acted at their own risk. The Bugis requested that the Rochor river should be cleared out, which was done, to the great advantage of their campong on the banks of that river.

Some time had elapsed before the idea became prevalent that Singapore might not be permanently held by the English, and in this time much had been done.

*Memo. of Roads, &c, made from first establishment  
till May 1821.*

Yards.	Yards in width.	Remarks.
2,500 in Cantonments.....	16	Carriage road.
1,800 to Rochor and Campong Glam..	16	ditto.
2,650 ditto. ditto. ....	15	ditto.
600 ditto. ditto. ....	10	Lined out.
1,800 round Singapore hill.....	8	Nearly cut round
1,200 over top of ditto.....	7	Small drains cut.
1,176 round Old Lines.....	2½	Horse road.
800 to Selligie.....	12	Carriage road.
1,380 round ditto.....	3½	Horse road.
1,675 from ditto to farthest gambier....	3	ditto.
3,100 Circular Road round west hills...	4	ditto.
1,440 along Rochor river.....	3	ditto.
3,374 roads and streets in China Town..	13	Carriage road.
2,396 over Teluk Ayer hills.....	2½	Foot path.
156 Katong point to Paggar ditto....	2	ditto.
100 Teluk Ayer to Sungei Kayah....	2	ditto.
140 Singapore and Seligie hill.....	4	Horse path.
26,475 yards of road at a cost of....	Drs. 6,447	
Military buildings.....	4,980	
Aqueducts, &c.....	2,500	



Spice bungalow.....	\$80
Jail .....	270
Bridges.....	600
Fortifications .....	3,000

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Total cost public works. Dollars.. 17,877

27th April.—The Madras Government enquire, with reference to the frequent escapes of Convicts from Pinang, whether some might not be advantageously introduced at Singapore. The Resident replied that a few could be received.

May.—Between 7th and 9th the Government Treasury robbed of 1,650 dollars—guard implicated.

A Court of Enquiry held at the instance of the merchants on Captain Methven, 20th B. N. I., for improper dealings with Tringanu traders, and after repeated attempts to get justice at the Civil Court had failed.

July.—List of occupiers of lands—Claude Queiros, J. Carnegy, Scott and Napier, Christie, A. L. Johnston, J. Morgan, A. Guthrie, G. Mackenzie, Williamson, Lackersteen, Hay Mackenzie, F. Ferraõ, J. Almeida, Baron Jamearil, F. J. Bernard, Dunn, Captain Flint, Lieutenant Crossley, Captain Methven, Lieutenant Davis, Colonel Farquhar.

Frequent reports of robberies. The Chinese at Campong Glam agitate the question as to the propriety of getting up a night watch similar to that supported by the Europeans. In the government report of 10th July, credit is taken for the fact that from July 1820, to July 1821, only 47 cases of robbery and larceny were brought to the police, with 2 cases for attempting to steal slaves.

Circular orders arrived to assist the Crown Commission to enquire into the subject of weights and measures, by sending home models of all in use, with explanations and information. Besides Singapore, the Resident was to take the Indian Archipelago and the East Coast of Sumatra. The result of these enquiries was published in "Kelly's Universal Cambist".

Measures were taken to prevent competition of foreign or other opium with that of Bengal. The Bencoolen opium regulations of 9th September 1817 extended to Singapore. Raffles anxious to prevent the regulations from interfering with the trade in opium.

1822.

9th May.—The Resident proposes to establish a Court of Requests, a measure rendered necessary by the advancing state of the settlement.

9th October.—Raffles arrived at Singapore.

17th October.—A committee formed, consisting of 3 disinterested persons—Dr Wallich of Calcutta, Dr Lumsdain and Captain Salmond of Bencoolen,—to fix on the new site for the town, rendered necessary by the original plan having been broken through.

October—Fifty slaves imported and sold by the Bugis in the river close to the Resident's house. Slaves sent as presents to Raffles and the Resident. Raffles calls the notice of the Resident to the Act of Parliament which makes it felony for any British subject to be concerned in slave dealing. The Resident allowed the practice, under the oft repeated plea of "the circumstances of the Port &c."

29th October.—Advertisement published, ordering all builders to discontinue work pending the orders of the town committee.

November.—A petition was presented by the Chulias, praying that a headman or Captain should be appointed for the mercantile and labouring classes.

The lower classes of Chulias prohibited from living in verandahs of houses or any where on the Eastern side of the town and a Chulia campong marked out for them.

The Resident referred the question as to the propriety of allowing European merchants to correspond with native states. Raffles, in reply, is surprised at such an extraordinary reference and sees no reason why the Singapore merchants should be debarred from a privilege enjoyed by every European vessel navigating the seas.

4th November.—A committee, consisting of Capt. Davis, Staff officer, S. G. Bonham, Assistant to Resident and A. L. Johnston, merchant, appointed to superintend the division of the native town. W. Montgomery, Assistant Surgeon, to be Secretary, on a salary of rupees 300. For their letter of instructions see vol. viii. p. 101.

7th November—A committee formed, consisting of Captain Flint, Captain Salmond of Bencoolen and Mr Maxwell (a merchant) with the Assistant Engineer, to enquire into the state of the

bar at the mouth of the river and to report on the means to be used for preventing an increase of the bar.

8th November—Town Committee report a favourable site for the market,—the Resident goes with the inhabitants &c and finds a better place near the China Temple. Che Sang the principal China merchant agreed to build the market if allowed to hold it free of tax for a certain number of years.

Botanic Garden established. Dr Wallich, of the Botanic Garden in Calcutta, appointed Superintendent. 22nd November, Dr Wallich applied for a piece of land on which to build a house for his accommodation, on his occasional visits to superintend the work, and particularly to enjoy the matchless climate which had already restored him to health.

Raffles gives up the Government Garden and directs the superintendent to take as much more as he requires to the N. E. Forty eight acres taken for which Raffles gives a grant, dated 20th November 1822, to the superintendent and his successors in office.

28th November.—Raffles issued an advertisement establishing a Pork Farm and called on the Resident to frame rules &c.

Raffles' original plan in laying out the Town of Singapore, was to have kept the centre, from near the Singapore to the Rochor rivers, for the European merchants. This ground was to have been divided into lots, leaving a space in front clear for general use. The ground on the left bank of the river, from the hill to the sea, was to be reserved for government purposes. The south side or left bank of the river, a low mangrove swamp, was to be reserved for the Chinese, the Rochor district for the Bugis, and the Malays were to be located up the river.

The merchants were indisposed to build along the north beach on account of the inconvenience in shipping,—the beach being flat and having generally a surf. The Resident allowed them to build on the government reserved land on the left bank of the river, but said they must be prepared to move if required. Raffles arrived at Singapore on the 9th October 1822, and found that a number of houses had been already built on the reserved ground. After much consideration he resolved to alter his original plan. The merchants refused to build on the North sea beach, and the north bank of the river was too limited. He then employed as many la-

bourers, as he could get and set them to level a small hill on the south side, at the site of Commercial Square. The earth from this hill was laid on the south bank of the river and the land thus raised became suitable for building. All those who had built by the Resident's permission on the north bank were bought out and had lots granted on the south side. Some of the buildings on the north bank were allowed to stand and one was used for many years as a Police Office, another is the present Post Office. It formed one of the duties of the Town Committee to examine and report on the best site for the town. It was said at the time that the Resident thought the north bank of the river was large enough for all purposes required, and he allowed himself to be overpersuaded by the influence of some of the merchants to let them build there. It must be added, however, that the inhabitants of Singapore are indebted to the first Resident for the present esplanade. Finding Raffles going on very fast giving away land he protested, under date 6th December 1822, and desired that a reference should be made to Bengal on his proposition to retain 800 yards on the north beach. Raffles did not condescend to forward the reference, but he reserved the ground on the beach from the Singapore to the Bras Bassa river. The Resident had clearly given the parties to understand, that if they built on the north bank of the river, they must do so at their own risk and be prepared to move if required. Messrs Mackenzie and Quiros received—the former 2,175 dollars, and the latter 3,000 dollars, as compensation for their houses which were then and there broken down and the materials sold, but Capt Methven, the owner of another house, was absent, and more difficulty was experienced. The house was purchased for 20,000 Rs. Mr Queiros was his agent, and after a long correspondence a proclamation dated 9th May, 1823, was issued, directing that the house should be taken possession of, by force if necessary. Mr Queiros protested and made a public address to the inhabitants, and threatened to prosecute the author of the proclamation for defamation. A Committee was appointed 28th February 1828, to decide on claims and to assist in laying out the town.

December.—Captain Flint, the Master Attendant, sailed round the island of Singapore in H. M. S. "Tees."

2nd December.—Advertisement and proclamation for the dis-

posals of lands for buildings for commercial purposes. Lands not to be sold, but only a right to occupy on terms to be settled hereafter by Government. 51 lots were sold on the 4th January following, for 44,260 dollars, and 6 lots on Rochor plain for 12,400 dollars.

6th December.—The Resident records his opinion, that 800 yards along the sea beach ought to be kept clear for defensive and military purposes.

1823.

11th January.—Raffles requests to be relieved and suggests that a Resident be appointed and placed under Bengal. He objects to Singapore being placed under the Pinang Government, on account of the opposite principles of the two settlements, the commercial rivalry, and the incompetency of the Pinang Government to appreciate the value of Singapore or to administer its government liberally and efficiently. He then goes on to object to Col. Farquhar succeeding, and to explain and note the history of the settlement and its present position and prospects.

The license fund was established to pay the police and other similar local charges. The Sultan and Tumongong were to be paid partly by allowances and partly by the half of the port duties. When these duties were foregone they had a claim on other revenues and were paid  $\frac{1}{3}$ rd of the license fund, but in December, 1822, he commuted with them for 500 dollars a month. The sums intended for public buildings were paid as compensation for the houses improperly allowed to be built on the north bank of the river, which had been reserved by him for the Residency house, Church, Police office and other public buildings, and after the erection of these buildings the local revenue would have been sufficient for the expenses, but now they must wait for another year.

Expences from 6th Feb. 1819 to 30th Apl. 1820 C's Rs 188,244

Ditto „ 1st May 1820 to 30th Apl. 1821 „ 105,954

Ditto „ „ 1821 „ 1822 „ 103,343

4th Feby.—The Resident was directed to employ the Assistant Engineer to select a better site than that allotted on the government hill for a European burying ground, and the present site was selected in consequence. Before this, the burial ground had been in front and close to Government House.

18th February.—Goa Island signal post directed to be removed to St Johns, which place was ordered to be cleared for the post.

15th February.—The Town Committee formed on the 4th November 1822, (Messrs Davis, Bonham and Johnston) this day dissolved with the warm thanks of Raffles, and their duties made over to the Magistrates this day constituted and appointed.

23rd February.—The first sale of lands on the Salat road, south of Scott's hill, in lots of from 50 to 200 acres for cultivation.

11th March.—Colonel Farquhar was severely wounded this day by a fanatic Arab, named Syed Yassin. The man was convicted and hung in chains. On the 14th Raffles published a proclamation stating the Sultan in the name of the Malayan race had requested pardon of the King of England and the body was allowed to be removed, but all must take notice that amokers shall be hung in chains and their bodies given to the winds.

14th March.—Location for the Sultan.—To the East of the European town and lying between Rochor river and the sea ; measuring in front, along Beach Road, 731 feet ; at back of Chuliah campong and along Rochor river about 1,200 feet ; in depth from Beach Road to Rochor river 2,100 feet ; estimated to contain 56 acres. To the Tumongong was allotted a space of 6,000 feet along the beach from Tanjong Pagar to Teluk Blanga and 1,200 feet deep, estimated to contain 200 acres.

28th April.—In consequence of the scarcity of labour the local Convicts were ordered to work on the roads.

1st May.—Accounts of Singapore ordered to be sent by the Resident direct to Bengal. The Resident misled by the above and finding the controul of Raffles unpleasant, became contumacious, called on Raffles to shew his authority for sitting in the Court of Justice and refused to obey his orders. Raffles took over charge of the civil duties of the station. The Resident had a party led by Mr Queiros, agent for Palmer & Co. of Calcutta.\* A long correspondence followed with Bengal, which ended in Colonel Farquhar's resignation, Mr Crawford's being appointed Resident, and in Singapore being placed directly under the Bengal Government.

\* At that time the avowed agents of the Netherlands government, against which authority Raffles' most strenuous opposition had been carried on for years.

May.—The gaming licenses were stopped, the Magistrates having, in a memorial of 9th April preceding, strongly objected to their continuance.

17th May—250 dollars given to the Rev Mr Thomsen from the license fund, towards building a Malay Chapel.

27th May—Mr Crawford arrived at Singapore and was received with a guard of honour and a salute of 15 guns. He took charge of the Resident's office and on 9th June following Raffles gave over full charge of the settlement, which was in future to be under the Bengal Government. Raffles sailed for Bencoolen the same day, and arrived on the 18th July following.

Regulations 4 of 1823, to suppress gaming and cock pits, and 5 of 1823, to suppress slavery, passed with the hearty concurrence of the Magistrates.

The Governor-General approved of the regulation 4 of 1823 for suppressing gaming, but afterwards when Mr Crawford restored the farm, Raffles wrote up from Bencoolen, under date 1st December 1823, to the Governor-General, protesting and urgently entreating the Supreme Government to annul Mr Crawford's farms. This letter was followed by another, dated 20th January 1824, protesting against gaming being allowed and against other derelictions from his (Raffles') policy.

6th June.—Raffles applied for a vessel to cruize against pirates.

9th June.—The circular letter which had been sent informing neighbouring states that Raffles had given over charge to Mr Crawford, returned unanswered by Van Der Capellan, the Governor-General of Java.

15th July.—The Resident applied to the Governor-General for leave to permit Mr F. J. Bernard to establish a newspaper, and on the 10th January following a copy of the 1st number was sent to Bengal.

15th July.—Mr Crawford reports on the local revenue, defends the collection of a revenue from gaming, and on the 23rd August, in consequence of the discovery of a conspiracy among the native police to defeat the gaming regulations, he re-establishes the gaming farm.

Frequent instances of contempt of Court of Justice by Euro-

peans. One of the merchants put himself in violent opposition to all law and controul, fired a morning and evening gun from his schooner in the river, fired salutes in the river and put the Captain of a ship consigned to his house in confinement. He was at last ordered to be put in the mainguard and to be sent to Bengal, but through the intercession of friends was released on making an apology.

3rd August.—The final cession of Singapore to the English made this day, by the Sultan and Tumongong, after many difficulties.

October.—Letter from Calantan that Ligore Rajah was about to attack Pinang.

18th November.—The Resident is alarmed at the proceedings of the Dutch.

20th November.—A committee of military officers assembled to consider the best site for cantonments, the place used being wanted for other purposes. The cantonments were originally on the north bank of the river under the government hill, then removed to Rochor, but the ground was found to be too low. After this time they were removed to the present site. By garrison orders of 23rd June 1823, the cantonments were put under military law.

December.—The Java Government interposed with complaints made by the Rajah Mudah of Rhio of aggressions on the territory of Johore.

10th December.—The Revd Mr Robinson of Bencoolen having published a work on Malayan orthography, Raffles sent 6 copies to the Supreme Government and 30 copies to the Court of Directors.

1824.

5th January.—The Resident reports discovery of antimony on Borneo, to the North of Sambas, also that it is found at Bulang, 20 miles from Singapore. Next year 30 to 40 tons imported for trial.

9th January.—The Resident in a Judicial report, states that he is engaged in administering Chinese and Malay law. "The case with respect to Europeans is very different,—there exist no means whatever in civil cases of affording the natives any redress against them, nor in criminal ones any remedy short of sending them for trial before the Supreme Court at Calcutta. It is unnecessary to dwell on the great inconvenience of such a state of things &c. &c."



9th January—In a report on land tenures the Resident gives a list of grants already issued by Raffles from No. 1 to 576, and location tickets from 1 to 158.

—The Sultan and Tumongong sent in a long memorial, complaining of the British flag and protection having been removed from Johore. The following is the Resident's report to the Supreme Government on this document :—

To George Swinton, Esquire,

Secretary to the Government, Fort William.

Sir,—I have had the honor to transmit by this opportunity to the Persian Secretary, a joint letter from the native chiefs with whom we are connected at this place, and a separate one from the Tumongong, with translations of both.

On the subject of these communications it becomes necessary that I should offer some explanation. The first matter contained in the joint letter—that which refers to the fact of the British flag having been hoisted at Johore,—is probably not known to the Government, unless by rumour. The circumstances attending this transaction are shortly as follows :—

In the month of February 1823, the native chiefs connected with us, expressed to the local authority their apprehension that their rivals at Rhio intended to occupy Johore, and they solicited permission to hoist the British flag there to secure them against this risk. Their request was acceded to, and a flag supplied to them, which their own followers erected.

In the month of August I received a confidential order to strike the British flag at Johore, in the possible event of its having been erected. On the receipt of these instructions, the necessary directions were communicated to the native chiefs for striking the flag, and I entertained at the time no doubt but that they had been strictly complied with, having been assured that they were.

In the month of November, however, the apprehended occupation of Johore on the part of the rival chiefs at Rhio, assisted by the Dutch authorities at that settlement, was actually made. Messengers were dispatched from Johore to communicate this information to me, and I now not only learnt that the flag had not been struck, but that even a demand was set up for a right to our

assistance in driving away the people of Rhio. It was in vain that I gave the most peremptory orders to strike the British flag, and that I explained that no clause of any treaty bound the British Government to maintain the authority of the Sultan and Tumongong in any place beyond the limits of the island of Singapore. My directions were disregarded, until I found myself compelled to make a threat of sending a force to remove the flag, when they were at length complied with.

The object of the present address of the native chiefs to the Right Hon'ble the Governor-General, appears to be to complain of our withdrawing our protection, by striking the flag at Johore, and to claim the fulfilment of some supposed treaty or promise which binds us to assert and maintain their authority by force of arms. It is scarcely necessary for me to state that no such engagement exists, but that, on the contrary, the second article of the treaty made in February 1819, expressly provides that we are not bound to interfere in the internal political concerns of their Government, nor to aid them by force of arms in asserting their authority, while every other engagement with them is altogether silent on this subject.

I have been at much pains in explaining this matter to the native chiefs, but my efforts have not been attended with all the success I could have desired, for the subject is most repugnant to their wishes, and to certain ambitious views which they have been led to entertain. It will, therefore, be extremely desirable and satisfactory that the principles of the political connexion which subsists between them and our Government, should be made known to them for their guidance from the highest authority.

The second matter of the joint letter of the native chiefs refers to the question of slavery. The claim made here is that the Malayan law, which admits the existence of slavery, should not be altered or infringed. I presume to consider this as a demand utterly inadmissible,—Singapore, however anomalous its situation in some respects, exists only through British protection, and is therefore virtually a British possession for the time. Slavery, therefore, in any form in which it is expressly contrary to law cannot be tolerated.

The only individuals who can be considered as slaves in this

island, according to our laws, are such persons as were in a state of slavery before the place was made over to the British Government and the British flag hoisted. This would include several of the slaves of the Tumongong, as this chief with many of his followers were actually on the island when we received possession of it. It would, however, perhaps exclude all the followers of the Sultan, as he was not present at the period in question, and did not come over with his retainers until some time thereafter.

The difficulty is greatly enhanced by the impossibility of determining who is and who is not a slave. The chiefs insist that every person belonging to them is a slave, and in no respect master of his own property or actions, and they by no means confine this monstrous pretension to their mere retainers at Singapore, but make the same claim over every native of the numerous islands and straits in our immediate vicinity, nominally or otherwise dependent upon them, who comes to sojourn or reside at this settlement. The Tumongong at least declares, at the same time, that he has no slaves in the sense in which we understand the term—that is, persons who can be bought or sold for money. It is true, indeed, that these chiefs are not in the practice of selling their people for money, but it is equally certain that their retainers cannot rid themselves of their allegiance, or rather of the condition of villinage in which they exist, without the payment of a fine, and this too only as a matter of especial favor.

From the circumstances of this settlement, the nature of our relations with the native chiefs, and the serious although unavoidable inconvenience of their living amongst us or in our immediate vicinity, the question of slavery is frequently agitated, and unless settled and defined from the highest authority is likely to become the subject of considerable vexations and embarrassment.

The temptations to the followers of the native chiefs to quit them are very great. The high reward of labour and the comfort of the free labouring classes which they see before them, are all sufficient inducements to the men. The female portion have the additional one arising from the disproportion of the sexes which exists among the different classes of the inhabitants. Amongst the followers of the Sultan and Tumongong the proportion of women to men is two to one. Amongst the free settlers of every

other description, this proportion is even more than inversed, the men being more than double the number of the women, and in the case of the Chinese the disproportion is so great that there are at least eight men to every woman.

The least degree of ill-treatment, and a considerable share of it has come to our knowledge, is sufficient under the circumstances I have stated, to induce the followers of the native chiefs to quit them. Whenever such an event takes place, their persons are demanded, remonstrances follow, and some dissatisfaction has been expressed in many cases where no claim of servitude could be made, and where it would have been a flagrant injustice to have remanded the parties.

The easy remedy for the inconvenience now complained of, appears to me to be that the Resident should open a register for the admission of the names of all persons who are *bonâ fide* slaves of the native chiefs, or who, being of mature age, acknowledge themselves to be so in the presence of impartial witnesses. In the same register might be inscribed the names of all the followers of the native chiefs who are their debtors, a class that from the poverty and improvidence of this race of people is very numerous. The amount of the debt should be inserted, and the parties not be at liberty to quit the service of the chiefs until they have either discharged the full amount of the debt, or served such a reasonable length of time as might justly be considered equivalent to its liquidation.

I have often proposed this plan to the native chiefs, and although they apparently acquiesced at first, they have not failed in the end to evade it, no doubt receiving it with jealousy as an irksome restraint upon their authority.

Should the Right Hon'ble the Governor-General be pleased to approve of the suggestion now offered of forming a Registry, it might be carried into effect without any difficulty, by an expression of his approbation in the reply to the letter of the native chiefs.

The breach of engagement apparently referred to in the concluding part of the letter of the native chiefs, has reference only to the subject of slavery. I am not aware of the existence of any treaty or engagement by which the right of perpetuating

slavery while they live under the protection of the British flag is guaranteed to them, and I rest most fully satisfied that the concession of such a right or of any other which implied a violation of the law of the realm could not have been in the contemplation of any British authority. By the convention concluded in June 1823, the only concessions made to the Institutions of the Malays regard the ceremonies of religion, marriage, &c, the rules of inheritance, and even these are to be respected where they shall not be contrary to reason, humanity, &c.

The subject of the separate letter of the Tumongong, refers to a general and indefinite engagement to assist him in removing and establishing himself at his present residence. A similar engagement for the construction of a mosque was entered into with the Sultan, and a specific verbal promise of 3,000 dollars made to him by Sir T. S. Raffles in my presence, during an interview which took place for this and other purposes. At this interview, however, the Tumongong although invited did not personally attend, owing to a temporary indisposition. His confidential advisers, however, attended for him, but made no claim whatever in my presence, and it was not until a month after the departure of Sir T. S. Raffles, that this chief urged a claim of similar amount to that of the Sultan. He has already received on account of himself or his followers, either for the removal or the construction of a new dwelling 3,000 dollars. Yet I have most respectfully to recommend that his present demand, although not extremely reasonable, be also complied with, that even a possible suspicion of ill-faith may not attach to the Government from any thing which may be supposed to have taken place, even through misapprehension.

The demand made by the same chief for a residence in the town of Singapore has placed me in the same awkward situation as his pecuniary one. The matter was never hinted to me, either verbally or in writing, from the source of my instructions on other points, and it was with a good deal of surprise that I first heard the demand. The residence of the Tumongong and his numerous and disorderly followers was a nuisance of the first magnitude. Three thousand dollars had actually been paid for his removal. Three thousand more are demanded for the same

object, and yet he wished to preserve a temporary residence in the very same spot, and to occupy all the ground which he had ever occupied. This would have been to have perpetuated every nuisance for abating which so large an expence had been incurred. The matter would probably have been even aggravated, when the followers of the Tumongong were living in his enclosure removed from the controul of their chief.

The inconveniences which arise from the present unsettled nature of our arrangements with the native chiefs, lead me to suggest for the consideration of the Right Hon'ble the Governor-General the expediency of entering into new engagements with them, in which the relations in which they are henceforth to stand with the European Government may be laid down with precision and a termination put to the hopes which they have been led to entertain of aggrandizing themselves abroad at our expense, or embarrassing our local administration.

I beg for a moment to bring to the recollection of the Right Hon'ble the Governor-General, the situation of this island and of the other countries in its neighbourhood constituting the nominal principality of Johore, when we formed our settlement in the year 1819. This principality extends on the continent from Malacca to the extremity of the peninsula on both coasts. It had several settlements on the island of Sumatra, and embraced all the islands in the mouth of the Straits of Malacca with all those in China seas, as far as the Natunas in the latitude of  $4^{\circ}$  N. and longitude  $109^{\circ}$  E. These countries are all sterile, thinly inhabited here and there on the coast only, and commonly by a race of pirates or fishermen, whose condition in society, ignorant of agriculture and without attachment to the soil, rises very little beyond the savage state, neither is there any good evidence of there ever having existed a better or more improved order of society.

The condition of the island of Singapore itself may be adduced as an example of the whole. There was not an acre of its surface cultivated and not a dozen cleared of forest. The inhabitants, amounting to a few hundreds, commonly lived only in their boats, and finally the place had, not groundlessly, the reputation of being one of the principal piratical stations in these seas.

The father of the present Sultan, being a person of some strength of mind, addicated himself to commercial pursuits and enjoyed more consideration than his predecessors, and consequently had a more extensive influence. He had no acknowledged successor, however, in his Government. The individuals recognized both by ourselves and the Dutch were illegitimate children, and being both of them destitute of energy made no attempt to assume his authority.

The principal officers of the Government of Johore from early times were the Bandahara or treasurer, and Tumongong or first minister of justice. These offices appear to have been a long time hereditary in the families of the present occupants, who were indeed virtually independant chiefs, the first of them residing at and exercising sovereignty at Pahang, and the other, the individual with whom the British Government is now connected, doing the same thing at Singapore.

The present Sultan when he connected himself with us, was not only destitute of all authority but living in a state of complete indigence. It is unnecessary, therefore, to dwell upon the comfort and respectability which this chief has derived since he placed himself under our protection. The condition of the Tumongong has not been ameliorated to the same extent, but I am not aware of any honest emolument which he has forfeited by his change of circumstances, and it may be added, although he is perhaps not entirely convinced of the beneficial nature of the change, that he has been rescued from a course of life of not the most respectable description. He is, at all events, unquestionably at present living in a greater state of affluence, security and comfort than it was possible for him to have enjoyed without our protection.

I have no hesitation in submitting it to the Right Hon'ble the Governor-General as my firm opinion, that men born and educated with such habits and prejudices as belong to men in the state of society which I have just described, ought in no respect to be associated with us in the Government of a settlement, nine-tenths of the inhabitants of which it may be fairly asserted have an utter repugnance and perhaps even contempt for their Government and Institutions. It appears to me that any parti-

cipation whatever in the administration of the place on their part would be the certain source of trouble and embarrassment, nor am I able to conceive even any contingent advantage which can be expected to result from such a connexion.

The principal stipulation of any future engagement with the native chiefs ought, as it appears to me, to be the unequivocal cession of the island of Singapore in full sovereignty and property, for which the equivalent will be the payment of a sum of ready money and a pension for life. The payment in ready money need not be large, and in it may be included the pecuniary demands at present made by the native chiefs. The pensions should not exceed the present amount, which is 2,000 dollars to both chiefs included.

It should be another stipulation that the British Government should not afford personal protection to the chiefs, except when they reside at Singapore, leaving them, however, the unrestrained right, without forfeiture of their pensions, of residing at whatever other part of their territory they may think proper, with the single condition of their not entering into any political arrangements tending to involve the British Government or engaging in any enterprise tending to disturb the public tranquility.

The minor arrangements for defining the situation and duties of the native chiefs when residing in the island, were the point of sovereignty once established, would evidently be a matter of no difficulty. They would then be viewed as independent princes occasionally residing amongst us as visitors, and as such entitled to be treated with such marks of respect and such forms of courtesy, as would gratify their feelings without proving injurious to the good Government of the settlement.

However desirable such an arrangement might be I am bound to state to the Government that I anticipate considerable difficulty in carrying it into effect. There will not be wanting persons who will throw obstacles in the way of the negotiation, amongst the retainers and parasites with whom they are surrounded. It is further necessary to mention that the chiefs themselves have been unaccountably led to entertain unfounded hopes of aggrandisement and support through our means. They are at the same time not without some desire to participate in



our authority, although the singular indolence and incapacity both of themselves and of their followers render them utterly unfit for any useful employment.

In the formation of the settlement an opinion seems to have been prevalent that the support of the native chiefs was indispensable to its success, although considering their character, their indigence and their general destitution of useful influence, it is not easy to trace it to any substantial foundation. The first treaty with them conceded to them one-half of the duties on native vessels. The commanders of these vessels were then ordered to wait upon them, when presents were expected, and this continued until it was greatly abused. An exclusive right to all the lime on the island held valuable for exportation, seems afterwards to have been yielded to them, and a proposition is on record for levying a fine on all the Chinese returning to their native country for their exclusive benefit. These facts are evidences of the opinion to which I have alluded.

It does not appear to me that the influence of the native chiefs has in any respect been necessary or even beneficial in the formation, maintenance or progress of this settlement, the prosperity of which has rested solely and exclusively on the character and resources of the British Government.

If I may presume to offer an opinion, the easy and obvious course to have pursued in first forming our establishment, would have been to have given at once a valuable pecuniary consideration for the complete sovereignty of the island, a stipulation which would have left us in every respect free and unincumbered, and conveyed a title of such validity as would not afterwards have been cancelled by any art of the native chiefs wherever residing or under whatever influence acting. In this early stage, the sum which would have sufficed for such an object would certainly not have equalled one-half of what has already been disbursed to the native chiefs, and which has not fallen short of 60,000 dollars. It will perhaps be considered that the sooner we revert to this principle, the less exceptionable will be our title and the more easy and unfettered our future relations with the native chiefs.

Should the Right Hon'ble the Governor-General be pleased to

authorize me to negotiate for an engagement with the Sultan and Tumongong of Johore on the principles which I have had the honor to suggest, or on any other less exceptionable which the wisdom of Government may be pleased to point out, it will be my endeavour to smooth every obstacle which may be opposed to its successful termination.

I have the honor to be, &c,

(Signed) JOHN CRAWFURD.

Singapore, 10th January, 1824.

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9th January—Resident's General Report on Singapore.—The soil not fit for bread corn.—The natives not attached to the soil, littoral, live in boats, occupy themselves in fishing, piracy &c living on Sago brought from Sumatra—soil good for Pepper and Gambier, cost of clearing the land 35 dollars per acre. The only land of value is that suited for godowns and dwelling houses, the best is nearest the river, the value of the best lots—50 feet facade, 150 feet deep from river—3,000 dollars and 38 dollars yearly quit rent. Dwelling houses—lots of 1,200 square yards—worth 400 dollars with 28 dollars quit rent.

There are 12 European firms, either agents of or connected with good London or Calcutta houses, some have branches at Batavia, and not one can be called an "adventurer."

The Chinese are of 2 classes—Macao and Hokien—the latter the most respectable and the best settlers. All the merchants and most of the good agriculturists are Hokien.

The Klings are numerous and respectable as traders.

The Bengalees are few and those only as Menials.

The Bugis are numerous—They are distinguished from other Islanders by industry and good conduct. They are all traders, not agriculturists.

The Malays of Malacca useful settlers, but those of Johore and other native states more a nuisance than a benefit.

Except the fishing Malays all the natives appreciate the advantage of a good land tenure under a European Government and the Chinese particularly.

The convention with the chiefs not clear, but property and sovereignty over soil must be considered as invested in English.

The principle to be followed in order to attract agriculturists, is to give a good and secure permanent tenure, simple and with few formalities on transfer; a good plan either to make grants—an estate for years—or leases for 50 or 60 years renewable on fine, or say at once 1,000 years, title not to convey real property rights as in England, such as immunity from personal debts &c, but to be merely chattels. At present there is no power to tax Europeans—proposed to put in a clause to reserve power for the E. I. C. to assess rates for general municipal purposes, police, roads, lighting, cleansing, nuisances &c.

A few names are added of owners of lands at this period. Those marked 1 are merchants resident, 2 ditto not resident, 3 government officers, 4 missionaries.—2 Palmer of Calcutta, 2 G. D. H. Larpent, Calcutta, 3 Captain Murray, Commanding officer, 1 A. Hay, 3 Colonel Farquhar, 1 A. Farquhar, 3 F. J. Bernard, 3 Capt. Davies, 3 Capt. Flint, 3 Lieutenant P. Jackson, 3 S. G. Bonham, 3 Assistant Surgeon Montgomery, 1 Queiros, 1 Mackenzie, 1 Napier, 1 Hay, 1 Scott, 1 A. Guthrie, 1 J. Purvis, 1 A. L. Johnston, 1 Capt Almeida, 1 Morgan, 3 Hon'ble J. J. Erskine, Member of Council, Pinang, 1 Maxwell, 1 Pearl, 2 Carnegie of Pinang, 2 Baretto & Co. of Calcutta, 1 T. King, 1 C. Read, 1 Capt. Howard, 3 Capt. Methven, 3 Capt. Salmond of Bencoolen, 1 Captain Harrington, 1 J. Clark, 1 F. Maclaine, 1 Fletcher, 3 Ryan, Revds. 4 Morrison, 4 Milton, 4 Thomsen.

—The Resident asked permission to forward a gold cup with a letter, dated 27th December, 1823, presented to Colonel Farquhar, the late Resident, by the Chinese inhabitants of Singapore.

17th March—A treaty concluded this day at London, settling the differences in these seas between the English and Dutch, and recognizing the settlement of Singapore.

—The Dutch Resident at Rhio wrote to the Tumongong to ask him for a copy of the Johore genealogy. The Resident writes to Bengal : —10th May—"The circumstance of carrying on a secret correspondence with a stipendiary of the British Government, living "under its immediate protection, appearing to be a breach of that "rule of forbearance with respect to the mutual claims of both "governments in the Eastern Archipelago, the Resident recom-

"mended the Tumongong not to reply to the Dutch Resident's letter."

24th May—Supreme Government's order that the fines levied in Court should be applied to the improvement of the town.

3rd August—The Resident started in the ship "Malabar" 380 tons, for a trip round the island, to take formal possession, in terms of the treaty this day concluded with the Sultan and Tumongong, and in pursuance of orders to that effect from the Supreme Government, dated 13th January previously; he returned on the 10th August.

16th August—New police arrangements, 3 Constables, 54 Peons and 50 Street lamps total expence 350 dollars, from voluntary subscription of inhabitants.

23rd August—The Resident complains of deficiency in the judicial establishment and requests an increase. In a subsequent letter the following passages occur. "A third difference will arise from the want of a professional lawyer of high character and respectable qualifications, which can only be secured under the circumstances of this settlement in the person of a judge nominated by the Crown. Independantly of the impracticability of administering English law any where without a judge so qualified, the magnitude and intricacy of the business, which, from the growing commerce of this settlement, is likely to be brought under the cognizance of a Court of Justice, render such a provision absolutely necessary."

"The charter of justice for Prince of Wales Island has been in operation for 16 years and I am led to believe has given satisfaction and answered every purpose of substantial justice, it will therefore afford a safe precedent for any enactment in respect to this island. The union of the executive and judicial authority, however, under that charter appears decidedly objectionable, and would be much more so at this place, where the executive administration is entrusted to a subordinate officer of government. For this reason I would respectfully suggest that the judicial authority should be separate and distinct from the executive, as the surest means of rendering it independant and respectable."

The Resident then goes on to propose that in mercantile causes

the judge should have the assistance of a jury, and, as it will require two or three years to get a King's Court, a draft regulation for establishing a Civil Court and a Court for small debts is sent up for sanction. The first to have a respectable Solicitor as Registrar. The Court to consist of the Resident, the two Assistants and two inhabitants. The small debts Court to be under the two Assistants and to proceed summarily. A code of police regulations was also sent up for revision, nearly as complete as the draft acts for the same purpose lately prepared. A short time after the Resident received the following law opinion on this subject. "With respect to the natives, he (the Resident) "should make them pay their debts by selling their property and "by occasional incarceration; with respect to Europeans and particularly Englishmen, I should recommend the Resident to "assume only the authority of sending them from the island, "when by getting into debt or general misconduct they were "impeding the objects of government."\*

4th November—Hoey riots, several killed and wounded.

19th November—Mr Crawford's treaty with the Sultan and Tumongong ratified by the Governor-General.

Ten tons of copper coins, 1-100th of a dollar, intended for Bencoolen landed at Singapore.—1,184,000 cents.

1825.

25th February—The Resident sends an estimate for a market, 4,316 dollars and 60 cents, and asks authority to build as the present market is too small.

25th March—The Supreme Government on receiving intelligence of the Dutch treaty of 1824, directed that the Singapore correspondence should in future be directed in the regular way to each department, instead of, as heretofore, in one department by itself.

18th April—80 Madras, and on 25 April, 120 Bengal convicts arrived from Bencoolen. Lines built for 600 to 700—cost 13,199 dollars but, by extending buildings, having room for 1,200 to 2,000. Lieutenant Chester 23rd B. N. I. appointed Superintendent—150 dollars staff salary;—1 overseer 50 dollars, native

\* This opinion was written either by the Recorder of Pinang or by the Advocate General of Bengal.

doctor 12 dollars, writer 7 dollars, 1 peon at 6 dollars for every 25 convicts.

25th June—Mr Crawford's general report on the eastern seas. —The Dutch charge 35 per cent on all English cotton and woollen goods imported into Batavia, the only port at which Europeans can trade, and all the native ports over which the Dutch influence extends have the same regulations. The only effect of the treaty of 1824 has been to raise the duty on export of coffee in Dutch ships to  $f2\frac{1}{2}$ , to make it half of the foreign duty, instead of reducing the foreign duty. The trade which was increasing had been injured by these restrictions. Under English rule the Javanese were becoming accustomed to a cheap and regular supply of English goods. The trade continued good till 1823, when the imports amounted to 7,000 cases of piece goods, valued at 2,100,000 dollars. The import duties had been gradually raised from 6 to 12 per cent and in 1823 to 25 per cent from European, and 35 per cent from Indian ports. The high duties checked the trade and now in 1825 the imports are only 3,000 cases. The Batavia customs duties rose from 432,109 guilders in 1817,  $f996,556$  in 1818 to  $f2,622,241$  in 1823, and fell in 1824 to  $f2,399,943$  though duties raised retrospectively in that year.

The Dutch regulations destroyed the trade from India to the native ports under their influence. Pontianak in 1812 took 311,275 dollars worth of British goods. The place was then under native rule and the duties levied 3 per cent. The trade increased till 1817 when the Dutch interfered with their regulations and in 1824 the trade was extinct. The treaty of 1824, which stipulated that the Dutch native ports should not charge more on English than on Dutch imports, was disregarded. The Dutch got over the difficulty by boldly calling the ports Dutch, although notoriously governed by native rulers and having no further power than the presence of a few soldiers.

In regard to Cochin-China the Resident thus speaks in his report :—

The French had great influence in Cochin-China under the late king, but the present king, who ascended in 1819, is not favourable to them. In 1822, when the Resident visited the country, he found

8 Frenchmen and numerous missionaries, but now all are gone, the two last (in the public service) Messrs Vannier and Chaigneux passed through Singapore in April last on their way home.

In the same report, he says that the Sultan of Bruni offered him Labuan, which place was formerly occupied by the English, and that the Dutch within the last two years had made two unsuccessful attempts to establish themselves at Bruni. They offered protection but the Sultan answered that he is able to protect himself and if not he will give due notice.

15th September—The Resident (who had formerly held office under Sir Stamford Raffles as Resident at Sourabaya and Samarang) reports the unsatisfactory state of affairs in Dutch India. Insurrections in Java, Borneo, Sumatra and Celebes. All the troops called in to defend Batavia. The open country as far as Sourabaya in the hands of the insurgents. "I do not hesitate to report that the very existence of the Netherlands authority in India appears to me to be in imminent danger."

23rd September—The Resident proposes to employ the Revd. Mr Thomsen, a missionary, to translate a good code of Malay laws. Raffles formed a committee at Bencoolen, on the 31st October 1823, to report on native law.

A company was started this year to put on a steam vessel between Batavia and Pinang, calling at Singapore. The Resident promised to assist and asked leave to subscribe 2,000 dollars on the part of government.

#### 1826.

4th January—The Resident, in imitation of a similar scheme at Pinang, asked leave to establish a lottery, the profits to be applied to town improvement.

12th January—The Resident and Lieut. Jackson had prepared a chart of the Archipelago in Chinese and Bugis characters. He now asks to have it lithographed at Calcutta and sold to natives, whom he describes as very desirous of having it.

11th January—The Resident recommends that 3 beacons be lighted up at night for the harbour,—1 at Tree island, one at St Johns and 1 at Singapore town.

14th January—The Resident asks to be allowed to draw the allowances of Governor-General's Agent, as he was doing the duty

formerly done by Raffles. The Resident's salary was 750 dollars, table allowance 500 dollars, and house rent 150 dollars, total 1,400 dollars; Raffles' salary as Lieutenant-Governor of Bencoolen rupees 2,735, allowances 3,841, Governor-General's Agent 1,000, total 7,576 rupees, with 5 per cent on all sales and purchases.

January—Under the expectation of the Recorder's Court at Pinang being extended to Singapore, the Resident recommended the following gentlemen, then on the Magistrates list, to be included in a Commission of the Peace.

Civil Servants	{	Samuel George Bonham.
		Samuel Garling.
		John Patullo.
		Edward Presgrave.
		Charles Chester.
Merchants....	{	Thomas Davis.
		James Innes.
		Alexander Laurie Johnston.
		Alexander Kyd Lindsay.
		William Gordon Mackenzie.
		John Argyle Maxwell.
		William Paton.
		William Scott.
		John Spottiswoode.
		Hugh Syme.
Medical Officers	{	William Vincent.
		John Crawford, (Resident).
		William Montgomerie.

Charles Edward Davies, Bengal Native Infantry, Wm. Flint, Captain, Royal Navy

9th February—The Resident proposed to survey lands and register grants, transfers &c. Lieutenant Jackson appointed Surveyor, staff salary 300 rupees, commenced duty on 1st April following. Fees leviable:—

Registry of grant location ticket.....	1	Dollar.
Transfer.....	1	„
Making survey under 4 acres.....	1	„
Do. over 4 acres 25 cents per acre.		

8th August—Advertisement that the importation of Military Stores being illegal must be discontinued. The imports stated as follows:—



1823.....	18,780	Drs.	}	From London....	191,770	Drs.	
1824.....	176,132	"		"	Liverpool ..	21,500	"
1825.....	67,349	"		"	Holland....	46,504	"
1826.....	14,150	"					
					Drs.	259,774	
</							

14th August.—Mr Prince in orders at Singapore as Senior Members of Council and Resident Council at Singapore. Raffles in a letter to Bengal says, speaking of Mr Prince—"After a service of 35 years, during the largest portion of which he maintained himself without any charge to government."\*

—Mr Presgrave, the acting Resident, on the 15th August, in reply to an enquiry from Pinang as to house accommodation for the Governor on circuit, says Raffles built a temporary bungalow on the government hill for himself at public cost. Mr Crawford improved and enlarged the house at his own expence:—the house stood on the books 916 dollars. He also reports the inconvenience arising from want of suitable public offices, those in use being in merchants stores and not built for offices. The Resident, Paymaster, Treasurer and Accountant held their offices in their own private residences. On the Governor's first visit the houses of Captain Flint and Mr Napier were rented for his accommodation, the former at 500 Sicca rupees and the latter at 687 Sicca rupees monthly.

—Mr Presgrave, Acting Resident, reports on lands.—The tenure is a lease for years subject to a small annual quit rent. The Governor-General proposed 99 years, but this was objected to by the inhabitants and 999 years allowed. On the 26th August 1826, the Register contained only lists of lands granted by Raffles. Mr Crawford disapproved of Raffles' grants as informal and sent up his own draft to the government. The Advocate General objected to Mr Crawford's form and made out a draft of his own which was sent down. The Governor-General confirmed Raffles' grants but directed fresh papers to be issued, the total number was 569,

\* The Civil Servants at Bencoolen were allowed to trade. It appears that Mr Prince had a river and district to himself and no one else was allowed to trade or interfere there. In fact, for some, but it does not exactly appear for what services to the Company, further than keeping up the influence of the name, Mr Prince had the monopoly of selling and buying in a district. The remark is not personal to Mr Prince, it seems to have been the custom of the service.

of which the quit rent amounted to about 3,000 dollars. Mr Crawford gave numerous location tickets (no list of which was kept) to clear unreserved lands. All the lands were granted under condition to built or cultivate.

21st November—Pinang Government Notification abolishing port dues.

7th December—Pinang government call on the Resident Councillor for his opinion as to assessing Singapore. The Resident on 14th January following, states that houses are already assessed 322 dollars and 90 cents monthly, he amends it to 400 dollars and 37 cents,—objects to any tax on lands. The produce from lands is of trifling value.

1827.

27th February—Mr Prince sent a circular round on February 27th, inviting the inhabitants to make drains opposite their own premises. Great damage had been done by heavy rains, and to obviate future inconvenience it was proposed that drains should be made to carry off the water, and in order to have the levels uniform to allow the work to be done by government officers at a fixed rate of dollars 27.75 per 100 feet. A committee was appointed when the work was completed to assess the cost among the various proprietors. Committee—Messrs Bonham, Johnston, Maxwell, Syme and Scott. They reported in August that 5,088 feet of open and 113 feet of covered drains had been completed.

6th March—Government notification. H. M. Court of Judicature to be opened at Singapore. The Resident's Court to be closed and all suits for sums above 32 dollars to be removed and entered in H. M. Court.

March—In consequence of the great increase of Chinese vagrants the Resident Councillor recommended government to give them an allowance of rice for 1 year and send them into the interior to clear the jungle.

27th March—The Pinang government call for the licences or other authority under which all the Europeans at Singapore are authorized to reside in the East India Company's territories.

*Translation of a Malay Document submitted to the Resident  
Councillor at Singapore, by Sultan Hussain Mohamed  
Shah, in 1827.*

Sultan Mohamed Shah, first married the daughter of the Bandahara, named Puan ; but having no issue by her, he took a second wife, Inche Magah, the daughter of a Bugis man, of the family of Dayang, whose name was Dayang Maturang. Sultan Mohamed was regularly married to Inche Magah, and in due course of time she bore him a son who was named Hussain. From his birth the Sultan's first wife took Hussain under her charge, brought him up, and adopted him as her own child. When Tuanku Hussain had attained to man's estate his adopted mother, Angku Puan, died. Sometime after Sultan Mohamed's marriage with Inche Magah, he took a third wife, the daughter of one Hussain, a man of low degree, her name is Mariam, to whom he was also regularly married. She likewise brought him a son named Abdulrahman. These are the two sons of Sultan Mohamed now living, the one at Linga, the other at Singapore; their respective mothers, Inche Mariam and Inche Magah, are still alive. The latter is married to Suluwatang. Iman Seid performed the marriage ceremony between the Sultan and Inche Magah, which was witnessed by Mohamed Tahir and Lebie Mustafa, with five other respectable persons, the same was the case in the Sultan's marriage with Inche Mariam.

Inche Abu, Inche Tan Bukal and Inche Wan Brahim, descendants from the family of Bandahara, and of the rank of Datu, both on the part of the Sultan of Singapore, and the Sultan of Linga agree in stating the following circumstances, they occurred from first to last, even to the present time. Advance only the truth and nothing but the truth!

In the 1219 year of the Hejira, on the 18th day of the month Rabi-ul-Awal, the Datu Rajah Bandahara came from Pahang to visit Sultan Mohamed Shah at Linga. The latter, on this occasion, made known his wishes to the Bandahara regarding his successor, by committing his son Hussain to his charge, the custom of the Malays being that whom the Rajah commits to the charge of the Bandahara, the same is to succeed. The Sultan at the same

time signified his desire that, in the event of his demise, the country of Linga only should be given to his son Abdulrahman, and that all the other countries composing the dominion of Johore should devolve on his other son Tuanku Hussain, as his legal heir, that is, that the country of Rhio with all its provinces, bays, coasts and islands should revert to Tuanku Hussain. This declaration was made to the Bandahara openly, before all the Chiefs and Elders, and in the presence of Rajah Indra Bungsu. After this the Bandahara requested permission to return to Pahang, promising on the following year to re-visit Linga, but, soon after his arrival at Pahang, he fell sick and died.

2. When the Palembang people were meditating an attack upon Linga, Sultan Mahomed Shah presented each of his Sons with a prahu, that of Tuanku Abdulrahman was called the Ghurab, that of the Tuanku Hussain the Buntal Mengidam. Ishmail, the Shah Bundar of Pahang, was on board the latter prahu with Tuanku Hussain. The invasion of Linga by the Palembang people did not, however, take place, in consequence of an amicable adjustment of the difference.

3. The third circumstance relates to the Rhio war, i. e. the quarrel between Rajah Ali and Angku Muda. On this occasion Sultan Mahomed Shah proposed visiting Rhio in person, with a view of settling the grounds of dispute between these two Chiefs. He took with him his two sons, granting to Tuanku Hussain the privilege of carrying the yellow stars on his fore and main mast; Abdulrahman carried a red flag. The Malay custom is that he to whom the Royal Banner is given, shall be accounted the Heir and successor of the sovereign.

4. From Rhio, Sultan Mahomed went to Bulang, in order to pay a visit to a relation there. His presence had the effect of putting an end to the quarrel between Rajah Ali and Angku Muda. The whole of the people of Bulang being assembled on the occasion of the restoration of peace between these two Chiefs, the Sultan, pointing to the prahu of his son Hussain, called upon those assembled to observe to whom he had given the Royal Standard, thereby publicly declaring that he had chosen Tuanku Hussain for his successor and the people accordingly paid him honors as the heir of his father.

5. After adjusting this affair, Sultan Mahomed Shah returned to Rhio, where he was married to Angku Putri, and the Regalia were then deposited in her hands.

6. Sultan Mahomed Shah next proposed an alliance between his son Tuanku Hussain and the daughter of the Tumongong at Bulang, which accordingly took place. Tuanku Hussain afterwards removed, with his whole household, to Rhio, and Angku Muda and Rajah Ali both died shortly after.

7. The deceased Sultan Mohamed Shah, sent for Rajah Jafar from Salangur and returned to Lingin; but, previously, thus addressed himself to Angku Putri, who was known by the title of Rajah Muda, "since Rajah Muda you have no child of your own, I recommend you to adopt Hussain for your son." Angku Putri replied "you have said well. It is usually esteemed a favor to be permitted to adopt the children of inferior people, how much greater favor ought I to consider it to be allowed to adopt the son of a Sovereign Prince." It was on this account that the Sultan left the regalia in the possession of Angku Putri on his departure for Linga.

8. In the meantime Rajah Jafar arriving from Salangur, went to pay homage to the Sultan at Linga, when he was elevated by the Sultan to the rank of Rajah Muda. About this time Tuanku Hussain also visited Linga.

9. While on this visit his father proposed to him a visit to Pahang, recommending an union with the daughter of the Bandahara of that place. Sultan Hussain proceeded accordingly to Pahang, taking with him his father's request that the Bandahara would give his consent to the marriage. Soon after Tuanku Hussain's arrival at Pahang his nuptials with the Bandahara's daughter took place; and it was during his absence on this occasion that Sultan Mohamed Shah fell sick and shortly after died. On the intelligence of the Sultan's death reaching Pahang, Tuanku Hussain was anxious to put out immediately on his return to Linga, but, the northerly monsoon having set in, the Pahang Qualla was closed, which prevented him moving out of the river.

10. The great festival occurring while Tuanku Hussain was waiting for an opportunity of getting out of the Pahang river,

the Bandahara, Elders and chief people at Pahang, resolved to instal him as Sultan, and the Bandahara first, then the respectables, and after them the multitude, made their obeisance and performed the Royal ceremony, called by the Malays "Menjungjung Duli."

11. Now in regard to the death of a Sultan, the Malay custom requires that the successors should be raised, before the deceased can be regularly interred. The Sultan, when on his death bed, declared his will with regard to the succession, before all who were then assembled, that his son Hussain should succeed him in event of his disorder proving fatal.

When the funeral of the Sultan was about to take place, Rajah Muda advised Tuanku Abdulrahman to make himself Rajah, but the latter rejected the counsel, saying he would never be Rajah while his brother was alive. Rajah Muda then endeavoured to persuade him to fall in with his views, and partly by flattery, partly by force, aided by Seid Kuning, he was prevailed upon to be Rajah, only that the funeral rites of his father might be performed with due honors and solemnity. After this Tuanku Abdulrahman again declined the honors of Rajah, alleging his father's will as a reason for not accepting the offers of Rajah Muda. At length Rajah Muda and Seid Kuning constrained him into a compliance with their wishes, he however consented to act only during his brother's absence.

12. Tuanku Hussain quitted Pahang as soon as the season would permit him and proceeded direct to Rhio. On his arrival at that place Rajah Muda waited upon him and said to this effect—"What are your intentions? Will you be a Panglima, a trader, or a priest? I have one request to make to you, viz. that you will not think of becoming Rajah." To this Tuanku Hussain made no reply, and here the matter dropped. Rajah Muda next demanded the Insignia from Angku Putri, but she refused to give them up, stating that she could not deliver them up to Rajah Muda unless by the unanimous consent of the Bandahara, the Tumungong, Tuanku Hussain and Tuanku Abdulrahman, whose consent was indispensibly necessary, and when that was obtained she would deliver them to him on whom their choice might fall.

13. After Tuanku Hussain's return from Pahang, he resided in the house of the Angku Putri, who then wished to surrender

to him the regalia, but he declined the acceptance and requested his Mother to retain them in her possession until they would be presented to him in due form by the Bandahara and Tumung-gong. About 5 years after this the Dutch came to Rhio, and after them the English, who, with Sir Thomas Stamford Raffles at their head, invited Tuanku Hussain to join them at Singapore. Sir Thomas Stamford Raffles and the Tumunggong Abdulrahman publicly installed him as Sultan, and he, with the Tumung-gong, made over the island of Singapore to the English, and he has ever since resided with them at their new Settlement.

14. During the absence of Tuanku Abdulrahman at Tranganu whether he had gone with a view of forming a matrimonial connection, Rajah Muda ordered Seid Kuning to proceed to Batavia and propose to the Governor General to obtain the regalia from Angku Putri: And it is reported that Seid Kuning was authorized by Rajah Muda to promise, and did promise, if they succeeded in getting the regalia, to cede to the Dutch Company the island of Singkep and that in consequence the Governor General directed the governor of Malacca and the Resident of Rhio to take the regalia out of the hands of the Angku Putri, which by force and fraud they gained possession of and took to Malacca.

15. On Tuanku Abdulrahman's return from Tranganu he put into Rhio and the regalia having recently been brought back from Malacca, were given into his possession. Tan Bakal accompanied Tuanku Abdulrahman on this visit to Rhio, and he relates that, in a conversation which he had with Rajah Muda at that time, the latter observed to him "we must rough the matter now and when the Bandahara comes it will be easy to make all things smooth again"—intimating by this expression that, although Tuanku Abdulrahman had got possession of the regalia, that alone was not sufficient to constitute him Rajah, so long as the consent of the Rajah Bandahara and Tumunggong was not obtained.

16. At the same time the regalia were delivered to Tuanku Abdulrahman, Rajah Muda wished him to be invested, an honor which the former declined, when a Dutchman, called Rajah Laut (probably the Dutch Admiral) taking up the regalia and holding them over Tuanku Abdulrahman cried out "Hail Sultan, the rightful King of Johor!"

17. These things being past, the Dutch began to press Rajah Mudah for the performance of his promise, but, this having been made entirely without the knowledge of Tuanku Abdulrahman, Rajah Muda now found it difficult to prevail on him to consent to the surrender of Singkep, and could obtain from him only the expression of his indignation. In order to extricate himself from this dilemma with the Dutch, Rajah Muda determined upon substituting the Karimons for Singkep, pretending that, as Tuanku Abdulrahman was in possession of the insignia of Royalty, therefore he was Rajah, and that in consequence these islands could belong to no one else. But as the regalia were obtained by fraud and force the mere possession of them cannot convey any real right, for the custom of the Malays in raising their Rajahs, is, not to invest them by stealth, but openly, and with the counsel and consent of all the Mantris and Ulubalangs, but is far from being the case with respect to Tuanku Abdulrahman's elevation, and besides it is well known that the regalia were obtained for their present possessor by Dutch craft and force.

Translated the 7th November, 1827.

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## LEGEND OF THE BURMESE BUDHA, CALLED GAUDAMA.\*

By the Rev. P. BIGANDET.

## CHAPTER 14TH.

ANANDA, summoned by Budha to his presence, received the order to be ready to depart for the river Kakookha. Having reached the place, Budha descended into the stream, bathed and drank some water. Thence he directed his steps towards a grove of mango trees. Ananda had remained behind to dry the bathing robe of his master. Phra called the Rahan Tsanda and directed him to fold in four his dougout, because he wished to rest. The order having been complied with, Budha sat down, lying on his right side, with the solemn and fearless appearance of a lion. During his short sleep Tsanda watched by his side. Ananda soon came up. Budha called him and said:—The meal which the goldsmith's son prepared for me, which I have taken, is my last meal. He is, forsooth, much grieved because of the illness that has come upon me after having eaten at his place. Go now to him and make him acquainted with the merits he has gained in making an offering to me. Two meals that I have taken during this existence are equally deserving of the greatest rewards. The first was the Nogano served up to me a little while before I obtained the supreme intelligence, the second is that just offered to me by the goldsmith's son, when I ate rice and pork. That is the last food I will ever take until I attain the state of Niban. Both these meals were excellent and are deserving of an equal reward, viz., beauty, a long life, riches, happiness, a large crowd of attendants, the happiness of the Nat's seats, and all sorts of honors and distinctions—such are the merits reserved to Tsanda the son of the goldsmith; go and mention them to him, that his sorrow may be assuaged. Gaudama uttered on this occasion the following stanzas:—Alms deeds can defend from, and protect against, the influence of the sources of demerits which are man's true enemies. He who is full of merits and wisdom shuns evil doings, puts an end to concupisence, anger and ignorance, and reaches Niban.

\* Continued from p. 357.

Budha calling Ananda said to him :—let us now go to the opposite bank of the river Hignarawatis in the forest of Juggieng trees, belonging to the Mahlo Princes. Attended by a crowd of Rahan he crossed the stream. The forest was on a tongue of land, encircled on three sides by the river. Ananda, said Budha, you see those two lofty trees on the skirt of the wood, go and prepare a resting place for me between those two trees, in such a way that when reclining thereupon my head should be turned towards the north. The couch must be arranged in such a manner, that one extremity would be near one tree, and the other extremity close to the opposite tree. Ananda I am much fatigued and desire to rest. Though Budha's strength was equal to that of a thousand koudis of black elephants, it forsook him almost entirely from the time he had eaten Tsanda's rice and pork. Though the distance from the city of Pawa to the forest of Juggieng trees in the district of Kootheinaron, is but three garroots, he was compelled to rest, through that distance, twenty five times, and it was by dint of great exertions, that he reached the place after sunset.

[*Remarks of the Burmese translator.*—It has been often asked why Phra allowed his body to experience fatigue. The reason of this conduct has been to convey an instruction to men, and to make others prepared to bear pain and sickness. Should any one ask why Budha exerted himself so much to go to Niban in that place, he should be answered that Budha saw three reasons for acting in the manner he did. 1st, to preach the great Suta Thoodathana (things to be seen and known), 2nd, to instruct Thoobat and lead him to perfection, 3rd, that the disputes that were to arise on account of the division and possession of his relics should be quieted by the Pounha Dauna who would fairly and peaceably effectuate the partition of those sacred remains.]

Phra having reached the couch, lay down on his right side, with the noble composure and undaunted fearlessness of a lion<sup>100</sup>. The left leg was lying directly on the right one, but in order to avoid pain and the accompanying trouble, the situation of the two legs was such as to avoid the immediate contact of the two ankles and knees. The forest of Juggieng trees lies at the south-west of the city of Kootheinaron. Should any one wish to go to the city from the forest, he must at first go due east, and

then turn to the north. The place therefore where Phra stood was a tongue of land, surrounded on three sides by the river.

When Budha was lying on the couch, the two Juggieng trees became suddenly loaded with fragrant blossoms, which gently dropped above and all round his person, so as almost to cover it. Not only these two trees, but all those of that forest, and also in ten thousand worlds exhibited the same wonderful and graceful appearance. All the fruit trees yielded out of season the best fruits they had ever produced—their beauty and flavour exceeded all that had ever been seen. The five kinds of lily shot forth from the bosom of the earth, and from every plant and tree they displayed to the astonished eyes the most ravishing sight. The mighty mountain of Hymawonta which has three thousand Youndzanas in extent shone with all the richness of colors of the peacock's tail. The Nats who watched over the two Juggieng trees showered down without interruption the most fragrant flowers. From the seats of Nats, the flower Mandarawan, which grows on the banks of the lake Mandawan, glittering like the purest gold, with leaves expending like an umbrella, was showered down by the Nats, together with powder of sandal wood and other odoriferous plants. The Nagas and Galongs, joining the Nats, brought from their respective seats all kinds of flowers and perfumes which they dropped like dew, over and about Budha's sacred person. Phra seeing the wonderful prodigy performed by men, Nats, Nagas and Galongs, to do him honor and hearing the sweet accents of Nats voices singing his praises, called Ananda and said to him : you witness all that display<sup>101</sup> intended to do me honor; it is not as yet worthy of me who possess the knowledge of the most sublime law. No one can be my true follower, or accomplish the commands of the law, by such a vain and outward homage. Every Rahan or Rahaness, every believer, man or woman, who practise the excellent works leading to perfect happiness ; these are the persons that render me a true homage, and present to me a most agreeable offering. The observance of the law alone entitles to the right of belonging to my religion. Ever remember this, O Ananda, and let every believer in my religion act up to it.

Why did Budha on this last occasion lay little stress on the offerings that were made, whilst on former occasions he had much

extolled the innumerable merits to be derived from the making of offerings? The reason of his conduct was to give every one to understand that religion could not subsist unless by the practice of all the duties it commanded, and that it would soon disappear were it supported only by almsdeeds, offerings and other outward ceremonies. Almsdeeds are productive of great rewards, but the practice of virtue alone secures to religion a prolonged existence.

At that time an illustrious Rahan, named Oopalawana, at a single word from Budha, lowered the fan and went to sit at a certain distance. Ananda who had seen this Rahan attending assiduously on Budha's person during more than twenty seasons, was surprised at seeing him desired on that occasion to withdraw to a distance. Phra, reading in the soul of Ananda his innermost thoughts, said to him : Ananda, I am not displeased with Oopalawana, but his body being very large, he prevents the myriads of Nats that have come from 10,000 worlds to see me on this supreme moment. The Nats can see through the bodies of the generality of men, but this power falls short with men much advanced in merits, I therefore desired him to remove a little far, that the Nats might not be angry at not seeing my person.

Ananda put a great many questions to Budha, which are related at full length in the Parinibana Thoots.

He asked him among other topics, how the Rahans were to behave when women should resort to their monasteries<sup>102</sup>. Ananda, answered Budha, a Rahan desirous to free himself from the sting of concupiscence and keep his heart firm and steady, ought to keep his door shut, and never look at the women coming to the monastery or standing at the entrance, because through the eyes concupiscence finds its way into the heart and shakes its firmest purposes. But, replied Ananda, what is to be done when they come over to bring food to the inmates of the monastery. Ananda, said Budha, in such a case, no conversation is to take place with them, much safer and better it would be to hold conversation with a man, who, sword in hand, would threaten to cut off our head, or with a female Biloo, ready to devour us the moment we open the mouth to speak. By conversing with women, one becomes acquainted with them; acquaintance begets familiarity,

kindles passion, and passion leads to the loss of virtue and precipitates into the four states of punishment. It is therefore most prudent not to have any conversation with them. What is to be done, O Budha, in cases where women come to the monastery to hear religious instructions, to expose their doubts, to seek for spiritual advice, to learn the practice of religious duties, and render becomingly certain services to the Rahans? Should a Rahan be silent on such occasions, they will ridicule him, and say: this Rahan is deaf or too well fed: he, therefore, cannot speak. Ananda, replied Budha, when on such occasions a Rahan is obliged to speak, let him consider as mothers those who are old enough to be his mothers, as elder sisters those who appear a little older than he, as younger sisters or children those that younger than he,—never O Ananda, forget these instructions.

Ananda inquired from Budha what ceremonies were to be performed on his mortal remains after his demise. Ananda, replied Budha, do not be much concerned about what shall remain of me after my Niban: but be rather earnest to practice the works that lead to perfection: be not over solicitous concerning the affairs of this life, where the principle of change is ever entire; put on those inward dispositions, which will make you to reach the undisturbed rest of Niban. There are many among the Princes, richmen and Pounhas, who are well disposed towards me, and who will gladly perform all the usual ceremonies on my remains. They will, replied Ananda, no doubt come to me, and ask advice as to the most suitable mode of arranging every thing in a becoming manner. Ananda, answered Budha, here are the ceremonies performed after the death of a Tsekiawada king. When such a monarch is dead, they wrap his body with a new fine cloth of Kathicaritz, surround it with a thick layer of the whitest cotton, wrap it again with a second cloth of the same country, place over it another layer of cotton, and repeat the same process five hundred times. The body thus prepared is deposited in an open coffin, gilt outside, and rubbed inside with fragrant oil. Another coffin also gilt is turned over it as a covering. The pile is made of sandal and other odoriferous woods; flowers, perfumes, scented water are profusely spread over it. The coffin having been placed on the pile, fire is set to it. Similar ceremonies shall be performed on my body after my

death. On the spot where four roads meet, a Dzedi is to be erected. Whoever shall come to that place, and make offerings of flags, umbrellas, flowers and perfumes, shall thereby perform an act of religion, and give a token of his respect and affection for my person. He shall gain many merits, among others a complete exemption from all troubles and disquietudes during a long period. Ananda, four sorts of persons are deserving of the honor of having Dzedis erected after their death. 1, a Budha who possesses the infinite science, 2, a Semi-Budha, 3, a Rahanda, 4, a Tsekiawada king. He who builds a Dzedi in honor of Budha shall after his death migrate to a place of rest in the seats of Nats. To him that shall build a Dzedi in honor of a Semi-Budha, an inferior reward shall be awarded in a lower seat of Nats, and a similar reward shall be enjoyed by those who erect Dzedis in honor of Rahandas and Tsekiawada kings. It may be asked why the honor of a Dzedi is conferred on a king who lives in the world, enjoys its pleasures &c, whilst it is denied to a Rahana who has renounced the world and practised the excellent works. Formerly in Ceylon the Dzedis erected in honor of deceased Rahans, became so numerous that they threatened to cover the superficies of the whole country. It was then resolved that none should be built for Rahans though it is acknowledged that they deserve such distinction. The same reason does not exist for a Tsekiawada king who is alone. But all the Rahans that are full of merits, are deserving after their demise of all honors except that of a Dzedi.

When Budha had finished his instructions, Ananda thought within himself: Phra the most excellent among all beings, has just taught me how to honor Dzedis; he has pointed out to me the source of merits: he has indicated to me the sure way to deal with women, and finally declared that there were but four sorts of persons deserving of the honor of a Dzedi after their death. From the tenor of these instructions, I know with certainty that on this very day Budha is to enter the state of Nibana. Unwilling to show his profound affliction in the presence of his illustrious master, he retired into the Dzeat of the Mahlo kings, close by, and leaning on the door bolt he wept bitterly and said: alas! the most excellent Budha soon shall be no more: by what means shall I obtain the three last degrees of perfection? who shall be my teacher? to

whom shall I henceforth bring water in the morning, to wash the face? whose feet shall I have to wash? for whom shall I prepare the place for sitting, and the couch for sleeping? whose Patta and Hiwaran shall I have to hold ready and to whom shall I render the ordinary services? In the midst of sobs and wailings he was giving vent to his deep affliction. Budha not observing the faithful Ananda among the Rahans said: my dear Rahans, where is Ananda? Having been informed of all that was taking place, he desired a Rahan to go and call Ananda. The message having been conveyed rapidly to Ananda he hastened to come into the presence of Budha whom he saluted as usual, and then took his seat. Budha addressing him, said: O Ananda, your tears and lamentations are to no purpose, do not give yourself up to disquietude, cease to shed tears: Have I not previously said to you that distance or death must separate us from the dearest objects. In the body there is a principle which causes its existence and its preservation as long as the opposite principle of destruction does not prevail. It is true you have ministered unto me for many years with all your strength and the most perfect devotedness. But you shall reap the reward due for so many good offices. Apply yourself to the exercise of Kamator and soon you shall be freed from the world of passions, and the influence of mutability. Addressing all the Rahans present, Budha began to praise Ananda, saying: Beloved Rahans, Ananda<sup>103</sup> has been during many years my faithful and devoted attendant: he has served him who is worthy to receive all offerings and is moreover acquainted with all the laws of the physical and moral world. Ananda is a true sage, he is well versed in all that relates to my person, he can show to the male Rahans and female Rahans as well as to the crowds, the time, the moment and the place to approach my person, and pay the honors due to me. Ananda is graceful and full of amiability amidst all other Rahans; he has heard and seen much, he shines in the midst of the assembly. Rahans will come from a distance on hearing all that is said of his graces, to see and admire him, and all will agree in saying that what they observe surpasses all that they had heard. Ananda will make enquiries regarding their health: they, on hearing his words, will be filled with joy. He will then keep silent, and they will retire with an increased desire to listen to him. He will say

to the female Rahans that will come to see him : sisters, observe the right precepts. On hearing Ananda they will be exceedingly glad. He will then remain silent, and his silence will grieve them. The laymen and laywomen on hearing all that is said of Ananda shall come to contemplate him. He will say to them : adhere to the three precious things ; observe the five great commands ; keep the four days of worship of each month ; pay honor and respect to your father and mother ; feed the Rahans and the Pounhas that observe strictly the law. They will all be delighted at hearing his instructions. His silence will leave them earnestly wishing to hear something else from him. Beloved Rahans, Ananda much resembles a Tsekiawada king. Like him, he is exceedingly beautiful, amiable and lovely : he can fly through the air : he can teach the people, and justly administer the law.

When Budha had finished his discourse, Ananda said : O illustrious Budha, it is not becoming your dignity, that you should arrive at Niban in such a small city and in a place almost surrounded by forests. We are in the neighbourhood of the great countries of Tsampo, Thawati, Thakilo and Baranathi. The kings, pounhas, noblemen and people of those countries are full of love and reverence for your person. They could render greater honors to your mortal remains. Ananda, replied Budha, do not call the country of Koothinaron, a small country. I have on former occasions often been to this place and extolled its riches and crowded population. This is the place where it is most becoming I should enter into the state of Niban. Go now to the city and inform the Mahlo Princes that to-morrow morning at the break of the day, the most excellent Budha shall go to Niban. Let them not have to complain hereafter that they have not had a timely information of this event, and do not complain that they had not had a last opportunity to come and see me. Ananda, putting on his dress and carrying his Patta, went alone to the city. At that moment the Princes were assembled in the Dzeat to deliberate upon some important affair. As soon as the message was delivered, the Princes, with their wives, their sons and daughters began to cry aloud : alas ! the most excellent is too soon going to Niban. Some appeared with dishevelled hair,



some lifted their hands to their foreheads: some crying out, wailing, threw themselves on the ground, rolling and tossing about, as persons whose hands and feet had been cut off. They all set out in haste, with Ananda at their head, towards the place where Budha was lying on his couch. All of them were admitted into the presence of Budha and paid their respects to him.

In the city of Koothinaron lived a certain personage holding heretical opinions<sup>104</sup>. His name was Thoubat. His mind hitherto uncertain and unfixed hesitated between belief in Budha's doctrines and his former opinions. Having been informed that there was a Budha in the neighbourhood, who was soon to go to Niban, he desired to see him and in his conversation to clear up his doubts. His age was not great, but he enjoyed such a renown for learning that he was called the master of masters. Thoubat went at first to Ananda, stated to him that he felt unavoidably a strong attachment to, and sincere affection for the great Rahan, that his mind was preyed upon by doubts and uncertainties, and that he hoped a short conversation with the great Gaudama would relieve his mind from its present painful situation.—Ananda, fearing that such a conversation might be much protracted, refused to admit Thoubat into the presence of Budha, representing his extreme weakness and inability to speak much. Thoubat made several instances but with no better success, Ananda persisted in his refusal to introduce him. Budha hearing some noise, enquired from Ananda what was the cause of the noise he heard. Ananda related to him all that had taken place between him and Thoubat. Allow him to come, said Budha, I wish to hear him. Soon he shall be enlightened and convinced. I have come to this spot for the very purpose of preaching to him the most perfect law. Ananda returned to Thoubat and said to him: the most excellent Budha desires to see you. Thoubat, full of joy, arrived in the presence of Budha, saluted him, and, sitting at a becoming distance, said to him: Do the six celebrated teachers, who are always attended by a great number of disciples who are famous amidst other doctors, know all laws? Are there some laws they are unacquainted with? or do they teach some laws which they but partially understand? Budha, having gently reminded Thoubat that such questions were not suitable and to no purpose,

said: O Thoubat, I will preach to you the law, listen with attention to my words, and treasure them in your heart. No heretic has ever known the right ways that lead to perfection, and in their religion no one can obtain the state of Thautapan, and become a Rahanda. But in my religion there are found persons that have become Thautapan, Anagam &c and finally Rahandas. Except in my religion, the twelve great disciples who practice the highest virtues, and stir up the world, to free it from its state of indifference, are not to be met with. They are not to be found among heretics. O Thoubat, from the age of twenty-nine years, up to this moment, I have been striving to obtain the supreme and perfect science, and I have spent to that end fifty-one years, following the way of Ariahs, that leads to Niban. On hearing these words, Thoubat, overwhelmed with joy, endeavoured by several similitudes to express to his great instructor the pleasure he had derived from his preaching. O most illustrious Budha, said he, now I believe in you, and adhere to all your doctrines, I wish to become a Rahan. But it is a custom with you not to admit to the dignity of Rahan an heretic who is newly converted, but after a four month's probation. I wish to remain during that period as a probationer, and beg afterwards to be admitted among the Rahans. Budha, who knew the fervour of this new convert, desired to dispense in his case with the four months probation. He called Ananda and commanded him to admit Thoubat as Rahan. Ananda forthwith led Thoubat into a becoming place, poured water over his head whilst repeating certain formulas of prayers, shaved his head and beard, put on him the Hiwaran and taught him to repeat the formulas whereby he professed to take refuge in Budha, the law and the assembly. When this was done Thoubat was conducted into the presence of Phra, who desired he should be promoted to the dignity of Patzing, and instructed in the knowledge of Kamatan. Thoubat went into the garden, walked for a while and soon learnt the forty Kamatans. He was the last convert Budha made before he entered the state of Niban.

Budha calling Ananda and all the Rahans, said to them: when I shall have disappeared, and be no longer with you, do not believe that Budha has left you and is no longer among you—

you have the Thoots and the Abidama which I have preached to you: you have the discipline and regulations of the Wini. The law contained in those sacred writings shall be, after my demise, your teacher. Do not, therefore, think or believe that Budha disappears or is no more.

A little while after, Budha, addressing the Rahans, gave them some instructions regarding the attention and respect the Rahans were to pay to each other. As long, said he, as I have been with you, you have called one another by the name of Awoothan, but after my demise, you will no more make use of such a title. Let those who are more advanced in dignity and in years of profession call those that are their inferiors by their names, that of their family, or some other suitable appellation; let the inferiors give to their superiors the title of Bante. Ananda, let a Rahan Hauna be visited with the punishment of Brahma. But what is this punishment? replied Ananda. The Rahan Hauna is indiscreet in his speech, he says indiscriminately all that comes into his head. Let the other Rahans avoid speaking with him or even rebuking him. This is the punishment of Brahma.

Addressing again all the assembled Rahans, Budha said to them<sup>105</sup>: my beloved Bickus, if among you there be any one that has any doubt respecting Budha, the law, the assembly, the ways of perfections and virtues, let him come forward and make known his doubts, that I may clear them up. The Rahans remained all silent. The same question was three times repeated, and three times the Rahans remained silent. Then he added:—my beloved Bickus, if you have any respect for my memory, communicate your dispositions towards my person and doctrines to the other Rahans whom you shall hereafter meet with. The Rahans still remained silent. Ananda then said to Budha: O most exalted Budha, is it not truly surprising that among so many, not one could be found entertaining any doubt respecting your doctrine, but all should feel so strong an attachment to it. Ananda, replied Budha, I knew well that doubt and false doctrine could never be harboured in the soul of a Rahan. Supposing a number of five hundred Rahans, and taking the one who is the last in merits; he is at least a Thautapan, and as such there is no demerit in him that could lead him to one of the four states of punishment, his heart is fixed

upon the first way that leads to perfection, and he constantly strives to advance into the three superior ways of perfection. No doubt, therefore, and no false doctrine can ever be found in a Rahan.

After a short pause, Budha addressing the Rahans said ; beloved Bickus, the principle of existence and mutability carries along with it the principle of destruction. Never forget this, let your mind be filled with this truth, to make it known to you I have assembled you.

These are the last words Budha ever uttered. He entered into the first state of dzan, then in the second, the third and fourth ; he ascended therefrom successively to the first, second, third and fourth immaterial seats. When he had reached the fourth state, which is the farthest boundary of existence, Anandaasked the Rahan Anourouda, if Phra had completed his Niban. Not yet, answered Anourouda, but he has reached the last stage of existence. A little while more Budha had entered into the perfect state of Niban.

Thus in the first watch of the night, he had preached the law to the Mahlo Princes, at midnight he had converted the heretic Thoubat, and in the morning watch he instructed the Rahans. It was full dawn of the day when he entered the state of Niban.<sup>106</sup>

At that very moment a tremendous earthquake took place, with such a violence, that it filled every one with fear and trembling, and caused the hairs to stand on end.

#### CHAPTER 15TH.

On the occasion of Budha's Niban, the chief of Brahmas uttered the following stanzas : O Rahans, the great Budha who has appeared in this world, who knew every thing, who was the teacher of Nats and men, who stood without an equal, who was mighty and knew all laws and the great principle, this most excellent and glorious Budha is gone to Niban. Where is the being who shall ever escape death ? All beings in this world shall be divested of their terrestrial and mortal frame.

The chief of Thagias on the same occasion, repeated aloud the following words : O Rahans, the principle of mutability is opposed to the principle of fixity. It carries with it the elements of creation and destruction. There is no happiness but in the state of Niban, which puts an end to all changes.

The great Anourouda said in his turn : O Rahans, the most excellent Budha, free from all passions, has entered by this death, into the state of Niban. He whose soul, ever firm and unshaken, was a stranger to impatience and fear, has gone out from the whirlpool of existences, and is no longer subject to the coming into existence and the going out therefrom. Passions have no more influence upon him. He is disengaged from the trammels of mutability, and has ended like the light of a lamp the oil of which is exhausted.

Ananda added : O Rahans, when the great Budha, full of the most transcendent excellencies, attained the state of Niban, the earth quaked with that violence which fills the soul with fear, and causes the hairs of the head to stand.

After the demise of Budha, the Rahans that had reached the two states of Thautapan and Thakadagam, lifting to the forehead their joined hands, began to wail and loudly lament. Men threw themselves down on the ground bitterly lamenting the loss the world had met with. They all exclaimed : the glorious and illustrious Budha has too soon gone to Niban. He who ever spoke but good and instructive words ; he who has been the light of the world, has gone too soon to Niban. In these and other words they gave utterance to their grief and affliction, tears and lamentations. The Rahans who had reached the two last states of perfection, the Anagams and Rahandas, more calm and steady in their mind, were satisfied with repeating in solemn tones : there is nothing fixed in the principle of mutability, Budha entering in the current of change could not but die, his body was to be destroyed. They remained meditating on this great truth, retaining unchangeable and calm composure.

Anourouda, assembling together all the Rahans, said to them : cease now to weep and lament ; banish sorrow and affliction from your hearts ; remember presently what the most excellent Budha has told us, that all that exists is liable to destruction, which it can never escape. What will become of Nats and men ? what will they say, when they see the Rahans delivered up to grief and giving vent to it in loud wailings ?

Ananda enquired from Anourouda what actually took place among the Nats respecting the death of the great Budha. He was told that some of them, lifting up the joined hands to the

forehead, loudly wept and lamented ; but others more wise, bearing in mind what Budha had said on the subject of the principle of mutability, remained wrapt up in a solemn and resigned composure of mind. Anourouda spent the remainder of the night in preaching the law. He said to Ananda : go now to the city of Koothinaron, say to the Mahlo Princes that the great Budha is gone to Niban, that they ought to dispose everything for the funeral. At day-break, Ananda putting on his Hiwaran, and taking his Patta went alone to the city. He met the Princes assembled in the public hall, deliberating on what was to be done when Phra should have gone to Niban ; and said to them : O Princes of the Wathito race, the great Budha has gone to Niban : the moment is come for you to go to the spot where are his mortal remains. When the Princes heard this sad news from the mouth of Ananda, they, with their wives and children, began to wail and lament and give all the marks of the deepest grief, unceasingly repeating : the most excellent Budha, who was infinitely wise and knew all laws, has too soon gone to Niban. The Princes now selecting one of their family, directed him to go throughout the city and collected all the richest and rarest perfumes, and keep in readiness the drums, harps, flutes, and all other musical instruments, and have them carried to the place where the remains of Budha were lying. Having reached the spot, the Princes began to make offerings of flowers and perfumes with the greatest profusion, in the midst of dancings, rejoicings and the uninterrupted sounds of all the musical instruments. A temporary canopy was erected with the finest pieces of cloth, and they remained under it during seven consecutive days. After this lapse of time, eight of the youngest and strongest Princes, having washed their heads and put on their finest and best dresses, prepared to carry the corpse to a place situated in the south of the city, where they intended to have it burnt. In spite of their united efforts, they could not remove it from the place it was laid up. Anourouda consulted on the subject of this extraordinary and unexpected occurrence said : O Princes, your intent does not agree with that of the Nats. You wish, after having performed all ceremonies about the corpse, to carry it to a certain place in the south of the city ; but the Nats will not agree to this : they intend to accom-

pany the corpse with music, dancings, singings and offerings of flowers and perfumes. They desire that the corpse should be carried to the western side of the city, then to the northern one, then to enter through the northern gate, and go to the middle square; thence to sally forth through the eastern and take the body to the place where the Malho Princes are wont to assemble for their festivals and rejoicings. Let it be done, answered all the princes, according to the wishes of the Nats.

The funeral procession then set out<sup>107</sup>. The Nats in the air honored the corpse with their music, singing and showers of flowers and perfumes. Men did the same all round the corpse. The way the procession slowly moved through, was strewn with the finest and choicest flowers. When the cortege had reached the centre of the city, the widow of General Bandoolo, named Malliko, hearing of the approach of the funeral procession, took a magnificent piece of cloth she had never worn since her husband's death, perfumed it with the choicest essences, and, holding it in her hands, until the procession reached the front of her house, she desired the bearers to wait for a while that she might offer to the body her beautiful piece of cloth, and extend it over it. Her request was granted. By a very happy chance, the cloth in breadth and length had the desired dimensions. Nothing could equal the magnificent sight of the body, beautiful like a gold statue, when covered with that splendid cloth, richly worked and adorned with the richest embroidery. The cortege having reached the place Matulabandana, where the funeral pile was erected, the corpse was lowered down. The Princes inquired from Ananda what was to be done for performing in a becoming manner the last rites over Budha's remains. Faithful to the last request of Budha, Ananda said to them that, on this occasion, they were to observe the same ceremonies as were prescribed for the funerals of a Tsekiawada Prince. The body was forthwith wrapt up with a fine cloth: then a thick layer of cotton, and a second cloth, and another layer of cotton, and so on until five hundred cloths and as many layers of cotton had been successively used. When this was done, the corpse was placed in a golden coffin, and another of the same form and size was turned over it as a covering. A funeral pile, made with fragrant wood and sprinkled

with the choicest perfumes, was ready. Upon it the coffin was pompously deposited.

At that time, the great Kathaba, attended with five hundred Rahans, was going from the country of Pawa to the city of Koothinaron. On a certain day, at noon, the heat was so excessive that the soil appeared burning like fire; the Rahans, extremely fatigued, desired to rest during the remainder of the day, intending to enter the city of Koothinaron during the cool of the night. Kathaba withdrew to a small distance from the road, and having extended his dougout under the shade of a large tree rested upon it, refreshing himself by washing his hands and feet with water poured from a vessel. The Rahans followed the example of their chief, sat down under the trees of the forest, conversing among themselves upon the blessings and advantages of the three precious things. Whilst they were resting a heretic appeared, coming from the city of Koothinaron, on his way to the Pawa country, carrying in his hand a stick, at the extremity of which there was a large flower, round like a broad cupboard, forming, as it were, an umbrella over his head. Kathaba perceiving the man at a distance, with that extraordinary flower, thought within himself: it is very rare ever to see such a kind of flower, it appears but through the miraculous power of some extraordinary personage, and on great and rare occasions. It shot forth when my illustrious teacher entered his mother's bosom, when he was born, when he became Budha, wrought miracles and came down from the seat of Tawatenitha. Now, my great master is very old, the appearance of this flower indicates that he has gone to Niban. Whereupon he rose from his place, wishing to question the traveller, but he desired to do it in such a way as to show his great respect for the person of Budha. He put on his Hiwaran and with his joined hands placed over his forehead, he went to the traveller and asked him whether he knew his great teacher, the most excellent Budha. The stranger answered that he had known him, but that since seven days he had reached the state of Niban, and it was from the place where this occurrence took place, that he had brought the Mandawra flower. He had scarcely said this word, when those among the Rahans who had but entered into the two first ways of perfection, began to wail and loudly lament over this untimely event, exhibiting every sign



of the deepest grief and greatest desolation. The others that were more advanced in perfection, remained calm and composed, remembering the great maxim of Budha, that every thing that comes into existence must come to an end.

A certain Rahan named Thoubat, who had left the holy profession, seeing the followers of Kathaba given up to tears and wailings, said to them; why do you weep and cry; you have no reason for doing so; we are now freed from the control of the great Rahan; he was always telling us, do this, or do not do that; in every way he annoyed and vexed us; now every one can act as he pleases.

This Rahan named Thoubat bore envy and revenge towards Budha, for the following reason. Formerly he was a barber in the village of Atooma, where he then became a Rahan. Budha was coming to that place, attended by twelve hundred Rahans. Thoubat wished to make an offering to Budha and his followers, and give them food. For this purpose he resorted to a very questionable expedient for obtaining from the villagers rice and other eatables, and preparing them. Budha acquainted with his conduct on the occasion, refused to accept the offering and forbade all his followers to eat of the food prepared by the barber. From that time the latter ever entertained ill-feelings towards Budha, though he did not dare openly to give vent to them.

Kathaba was thunderstruck at hearing such unbecoming language<sup>108</sup> from the mouth of the Rahan Thoubat. He said to himself: if at this time, when there are but seven days since Budha entered Niban, there are to be found people holding such language, what will become hereafter. These persons will soon have followers who will embrace the profession of Rahans, and then the true religion shall be totally subverted; the excellent law shall be in the hands of such persons, like a heap of unstrung flowers that are scattered by the wind. The only remedy to such an impending misfortune, is to assemble a council composed of all the true disciples, who by their decisions shall insure stability to religion, and fix the meaning of every portion of the law contained in the Wini, the Thoots and the Abidama. I am, as it were, bound to watch over the religion of Budha because of the peculiar predilection he has ever shown to me. On one occasion I walked with

Budha the distance of three garroots, during which time he preached to me, and at the end of the instructions, we made an exchange of our Hiwarans, and I put on his own. Therefore, I will hold an assembly of all the disciples, for the promotion and exaltation of the religion. This design Kathaba kept perfectly secret, and made known to none.

At that time four of the ablest Malha Princes, having washed their heads and put on a fine new dress, tried to set fire to the funeral pile made of sandal and odoriferous woods and one hundred and twenty cubits high. Their efforts proving useless, all the other princes joined them, with the hope that by their united exertions they would be able to set fire to the pile. Fans made of palm leaves were vigorously agitated over the heap of coals, bellows made of leather blew in the same direction but all these efforts were of no avail. The Princes, surprised and disheartened, consulted Anourouda as to the cause of such a disappointment. Anourouda said to them that the Nats did not approve of their proceedings, they wished that the great Kathaba should arrive and venerate the corpse, ere it be consumed by fire. No fire could be lighted before the great Rahan had made his appearance.

The people hearing the answer of Anourouda wondered at the great virtue of the great Kathaba, and anxiously waited for his arrival. They said to each other: who is indeed this distinguished Rahan? Is he white or black, short or tall? They took perfumes, flowers and flags and went out to meet him and honor him in a becoming manner.

When the great Kathaba arrived in the country of Koothinaron, he went to the place where the funeral pile was erected. He adjusted his clothes in the most becoming manner and with his hands joined to the forehead, three times turned round the pile, saying at each turn: this is the place of the head; that is the place of the feet. Standing then on the spot opposite to the feet, he entered into the fourth state of dzan for a while; his mind having emerged therefrom, he made the following prayer:—I wish to see the feet of Budha whereupon are imprinted the marks that formerly prognosticated his future glorious destiny. May the cloths and cotton they are wrapt with, and the coffin,

as well as the pile, be laid open and the sacred feet appear out and extend so far as to lie on my head. He had scarcely uttered his prayer, when the whole was suddenly opened, and there came out the beautiful feet, like the full moon emerging from the bosom of a dark cloud. The whole assembly burst into loud applause and continued cheers, on seeing this matchless prodigy. Kathaba stretching his two hands, that resembled two lilies just blooming, held both the feet firmly by the heels, placed them on his head and worshipped. All his followers followed his example and worshipped. Perfumes and flowers were profusely offered by the crowd. When this was done the feet slowly withdrew into their place, the pile and coffin resumed their natural position. As the sun and the moon disappear below the horizon, so the feet of Budha disappeared, buried as it were, into the folds of cloth and cotton. The people at this moment wept and loudly wailed: their affection for Budha was evinced on this occasion more forcibly than when he entered the state of Niban.

The feet had hardly been concealed from the sight of the people, when, without the interference of any one, fire caught the pile and soon set it in a blaze of flames. The skin, reins, flesh and liver of the body were all consumed, without leaving any trace of ashes or charcoal, as butter or oil, poured on a great fire, burn and are consumed without any thing remaining. Of the body all had disappeared except the relics. All the clothes that served to wrap up the body, except the outermost and innermost, were also consumed. The relics of former Budhas whose lives were very long, resembled a lump of gold. Our Budha, whose life had been comparatively of short duration, had said whilst yet alive: during my lifetime, religion has not been sufficiently diffused; those, therefore, who after my Niban, shall obtain of my relics something of the size of a mustard seed, and build a dzedi to place them in, and worship and make offerings to them, shall obtain a place of happiness in one of the seats of Nats. Among the relics, were the four canine teeth, the two bones that connect the shoulders with the neckbone and the frontal bone. These are the seven great relics. They were in a state of perfect preservation, not at all damaged by fire, and are called Athambinat. Besides these relics there were some others of a small

dimension in sufficient quantity to fill up seven Haronts. Here is the size and shape of those sacred remains: the smallest were of the size of a mustard seed, and resembled the bud of the Hing-kow; the middle ones equalled the size of a rice grain, divided into two parts, and looked like pearls; the largest were of the size of a pea and appeared like gold.

When the pile was consumed by fire, water came down from the sky, as thick as the arm, which soon extinguished the fire. The Malha Princes poured also upon it an immense quantity of scented water. During all the while the pile was burning, masses of flames issued from the leaves and branches of the trees, shining forth with uncommon brilliancy without burning the trees—insects of every description were seen flying in swarms on those trees without receiving the least injury.

In the place where the corpse had been exposed during seven days, the relics were deposited during the same length of time, and offerings of perfumes and flowers were incessantly made. Above them, a canopy bespangled with gold and silver stars was raised, and bouquets of flowers and perfumes were hanging therefrom. From that place to the one where ornaments were deposited, the road was lined on both sides with fine cloth; the road itself was covered with the finest mats. Above the road was spread a fine canopy bespangled with gold stars and flowers. The interior of the building was richly decorated; perfumes and flowers were seen hanging from the canopy. Around the building masts were planted, and adorned with the five sorts of flags. Plantain trees were planted on both sides of the road, and jars of cool water were laid down at a very short distance one from the other, as well as lamps to be lighted day and night. The box containing the relics, was placed on the back of a richly caparisoned elephant, and the precious remains were honored in every possible way, by offerings of flowers and perfumes, by dancing, singing, music, rejoicings and loud acclamations. The Malha Princes, to insure the safety of the relics, had a line of elephants drawn round the place, then a second line of horses, then a third of chariots, then a fourth of warriors. Such precautions were taken both for ensuring the safety of the relics, and allowing time to every body to come and do honor to them.

At that time the courtiers of King Adzatathat, knowing well the tender affection their royal master bore unto Budha's person, were reluctant in conveying to him the sad intelligence of his demise, for fear of causing to him too great an affliction. They took every possible precaution, and devised various means for preparing the king's mind to bear with composure the loss he had sustained. Three times the fatal message was adroitly delivered; and three times the king fainted. Steam baths and an abundant pouring of water over the head, restored him to his faculties. He wailed and lamented for a long time. Recovering from the shock of his deep affliction, he desired to assuage the grief caused by Budha's death, by getting some of his relics. For that purpose a messenger was despatched to the Malha Princes with the following request:—You are descendants of the great Thamadat; I, too, who rule over the Magatta country, boast of the same noble origin. For this reason, I put forward my claim for obtaining the possession of some of Budha's relics, which are now as his representations. I will give directions for the erection of a beautiful and tall dzedi, wherein they shall be deposited. I and my people shall have thus an object of worship. The kings of Wethalie and Leitsawi sent a similar request. Those of Kapi-lawot and Alekappa followed their example. The kings of Rama and Pawa, the Pounhas of Withadipa also sent in their reclamations, with a threat of having recourse to the force of arms, were their demands disregarded. They soon followed their messengers at the head of their troops.

The Malha Princes, on receiving those messages, consulted among themselves as to what was to be done. They agreed that, the relics of Budha being the most valuable thing in the world, they would not part with them. Many angry words were exchanged among the contending parties. They were almost ready to draw the sword, when a celebrated Pounha named Dauna, made his appearance. He stood on an elevated spot, and making a sign with his hand, he began to speak in a language calculated to smooth the irritation of the parties. Great was his influence over all, since there was scarcely a man in the island of Dzapoudiba who did not acknowledge Dauna as his teacher. O kings and princes, said he, hear one word that I have to say.

Our most excellent Budha always extolled the virtue of forbearance. You are ready to fight for the possession of his relics : this is not good. Let all of you be now of one mind with cheerful dispositions. I will divide the relics into eight equal portions. Let every one be ever solicitous to multiply in all directions Dzedis in honor of Him who was possessed with the five visions, that many may feel affection for the most excellent one. Dauna went on explaining more fully the two stanzas he had recited, saying : O kings and princes, our most excellent Budha previous to his obtaining the Budhaship, whilst he was even an animal, a man and a Nat, practised the virtue of patience ; he always recommended it in all his subsequent preachings. How could you have recourse to open violence, to warlike weapons, for his relics. You are kings of eight countries, come to a quiet and peaceable arrangement on this subject : speak to each other words of peace and rejoicings. I will have the relics divided into eight equal parts. You are all equally worthy to receive your share.

The kings, on hearing the words of Dauna, came to the place where he stood, and entreated him to make eight equal portions of the relics. Dauna assented to their request. They went with him to the place of the relics. The golden coffin that contained them, was opened, and then appeared to their regards all the relics beautiful like gold. The Princes seeing them said : we have seen the most excellent Budha gifted with the six glories, and all the bodily qualifications of the most accomplished person : who could believe that this is the only thing that remains of him ? They all wept and lamented. Whilst they were overwhelmed with grief, Dauna abstracted one of the canine teeth and concealed it in the folds of his turban. All the relics were duly apportioned to all the kings. A Thagia who had seen the doing of Dauna took adroitly the tooth without being perceived, carried it into the Nats' seats and placed it in the Dzoolamani Dzedi. When the partition was over Dauna was surprised not to find the tooth he had stolen. He did not, however, dare to complain, as his pious fraud would have been discovered. To console himself for such a loss, he asked for the possession of the golden vessel wherein the relics had been kept. His demand was favorably received and the golden vessel given to him.

The Kings of Mauria who ruled over the country of Pipilawana, hearing what had been done by Adzatathat and other kings, went also with a great retinue to the city of Koothinaron. The Princes of Malha informed them that the relics had already been divided, and that there remained nothing but the coals of the funeral pile. They took them away, and built pagodas over them, and worshipped.

King Adzatathat ordered a beautiful and well levelled road, eight Oothabas broad, to be made from the city of Koothinaron to that of Radzaguio. The distance is twenty-five youdzanas. He wished to adorn it in all its length in the same manner as the Malha Princes had done for the road leading from the place of ornaments, to that where the relics had been deposited. At fixed and proper distances, houses were built for resting and spending the night. The king, attended by a countless crowd of people, went to take the relics and carry them into his country. During the journey, singing, dancing and playing of musical instruments were uninterrupted. Offerings of perfumes and flowers were incessant. At certain intervals, they stopped during seven days, when fresh honors were paid to the relics, in the midst of the greatest rejoicings. In this manner seven months and seven days were employed in going over the distance between the two countries. At Radzaguio the relics were deposited in a place prepared for that purpose, and a Dzedi was erected on them. The seven other kings built also Dzedis over the relics they had obtained. Dauna built one too over the golden vessel, and the Mauria kings over the coals. Thus there were at that time ten Dzedis.

When this was all over, the great Kathaba fearing yet for the safety of the precious relics, went to king Adzatathat and said to him, that precautions were to be taken for securing the preservation of the relics. The king asked him by what means all the relics could be had from those who had obtained them. Kathaba replied that he would know how to manage such a delicate affair. He went to the seven kings who gave to him all the principal relics, keeping by themselves only what was strictly necessary to be deemed an object of worship and good will towards Budha's person. One exception was made in favor of the relics deposited

in the village of Rama, because they were in future times to be carried to Ceylon and placed in the great Wira or Pagoda. All the relics having been brought to Radzaguio to the south-east side of the city, Kathaba directed his steps with the precious burthen he carried along with him. Having reached a certain spot, he made the following prayer: may all the rocks and stones of this place disappear, and there be but a fine sandy soil, may water never issue from this spot. Adzatathat ordered the soil to be dug very deep: with the earth bricks were made, and eight Dzedis were built. The depth of the hole was eighty cubits. Its bottom was lined with iron bars. To that bottom was lowered a monastery made of brass, similar in shape and proportions to the great Wira of Ceylon. Six gold boxes containing the precious relics were placed in this monastery. Each box was enclosed in one of silver, the latter in one adorned with precious stones, and so on until eight boxes were placed one in the other. There also, were arranged 550 statues, representing Budha in 550 preceding existences, described in the sacred writings: the statues of 80 great disciples with those of Thoodandana and Maia. There also were arranged 500 lamps of gold and 500 lamps of silver, filled with the most fragrant oil, with wicks made of the richest cloth. The great Kathaba taking a leaf of gold, wrote upon it the following words:—In after times, a young man named Piadatha shall ascend the throne, and become a great and renowned monarch under the name of Athauka. Through him, the relics shall be spread all over the island of Dzapoodiba. King Adzatathat made new offerings of flowers and perfumes. All the doors of the monastery were shut and fastened with an iron bolt. Near the last door he placed a large ruby, upon which the following words were written:—Let the poor king who shall find this ruby present it to the relics. A Thagio ordered a Nat to watch over the precious deposit. The Nat disposed around it figures the most hideous and terrifying, armed with swords. The whole was encompassed by six walls made of stones and bricks; a large slab of stone covered the upper part, and upon it he built a small dzedi.

A little while after Kathaba went to Niban. King Adzatathat died as well as those who had been present on this occasion.



A long period had elapsed, when a young man named Piadatha became king under the name of Athauka. He ardently wished to spread the relics over the whole island of Dzapoodiba. He had with him a celebrated Recluse named Nigrauda. Profoundly pious and full of zeal for the propagation of religion, Athauka built 8,400 monasteries, and inquired about Budha's relics in order to place them in those monasteries. But no one could give him any information on the subject. By his order all the Dzedis of Radzaguio were demolished: the relics were searched, but in vain; they could not be found. The same work was carried on in Wethalie and other countries, but with no better success. He caused all the destroyed Dzedis to be rebuilt, and returned to Radzaguio, where he assembled all the Rahans and people and inquired if there was no person who could lead him in the way to discover the relics. In the crowd there was a man 120 years old, who said that when he was but seven years old, his father directed him to take some flowers and perfumes and leading him to a retired place, said to him: you see that dark bush in the middle of which there is a small dzedi; let us prostrate before it and make our offering; observe well this spot and ever remember it. He said nothing more, and we returned to our home. This is, doubtless, said the king, the very spot I am searching after, without having ever been able to discover it. The king and his people hastened to the indicated place. Great offerings were made to the guardian Nat, in order to propitiate him. This Nat assuming the shape of a young man, removed all the obstacles that obstructed the way to the place. When the king was near to the first door, he discovered the ruby whereupon was seen the above related inscription. On touching the bolt, the door was suddenly opened, when, to the great surprise of all present, the lamps that had been lighted 218 years ago, were found burning and full of oil; the flowers without the least sign of withering were as fresh and beautiful as those in the gardens; the smell of the perfumes seemed to be even more exquisite than that of new ones. The king taking the gold leaf, read the inscription concerning him. He took all the relics, except a few that he left therein, replaced and arranged every thing as he had found it.

When this was over, he assembled the Rahans and asked them

whether he could now hope to be considered as having done enough for the religion, and if he could look upon it as an inheritance, since he had labored so much for its promotion. Great king, said they, it is true you have done much for the benefit of religion, but these are offerings which entitle you but to the name of Daraka. He who wishes to obtain the divine inheritance, let him offer his sons to become Rahans, and his daughters to become Rahanesses. The king instantly presented his sons and daughters for the holy profession. Now O king, said the Rahans, you are fit to receive the holy inheritance.

All that has been hereinabove related respecting the partition of the relics by Dauna &c, has been extracted from the book Nibana Thoot. But he who wishes to know all the particulars concerning the places where the relics had been deposited &c, must have recourse to the books called Data Win, and Nalata-data Win.

For the purpose of creating and increasing feelings of affection towards the most excellent Budha<sup>109</sup> who is greater than the three rational beings, towards his glorious perfections, the law and the assembly, I have to the best of my abilities endeavoured to translate from the Pali into Burmese, the sacred book called Mallelingara.

#### NOTES.

100. The posture assumed by Budha on this last stage of his life has supplied the subject of an artistic composition to the Southern Buddhist Sculptors. A statue representing Phra in that reclining position, is to be seen in almost every pagoda. Some of these statues are made of almost gigantic proportions. I have measured one that was forty-five feet long. If we take such rough works as exhibiting the amount of skill possessed by natives in the art of carving, we must confess that art with them is as yet in its infancy. The huge idols I have met with, are never made of wood or hewed stones, but they are built up with bricks. The artist having made in this way the principal parts of the statue, covers the whole with a thick coat of mortar, the softness of which enables him to put without much labor the finishing hand to his work. These statues are invariably made after a certain pattern belonging to the highest antiquity, and to an epoch when the art was yet in its very infancy: they are, in an artistical point of view, the worst, rudest and coarsest attempts at statuary I have ever seen. Gold is however profusely lavished on these shapeless and formless works. The big idol above referred to, was covered with gold, that is to say, gilt from head to feet.

Idols of smaller dimensions,—those in particular representing Budha sitting in a cross-legged position, in the attitude of meditation,—are likewise wretched specimens of art. A great many are made of a soft stone, almost white, in appearance resembling marble, and capable of receiving a most perfect polish.

101. If Budha has ever deserved the surname of sage, it is assuredly on this occasion that he has entitled himself to such an honorable distinction. All nature has reverted its course on his account: wonders of the most extraordinary character have loudly proclaimed his supereminent excellencies: the most exalted beings

have united their voices in extolling his transcendent merits, and showing their unbounded respect for his persons; all that could dazzle the eye, please the ear and flatter the heart, had been displayed on an unparalleled scale for doing honor to him who was about to leave this terrestrial abode. Budha, however, solemnly declares and unhesitatingly says to Ananda, that such a display is infinitely below his merits and perfections, and can bear no comparison with his fathomless wisdom and boundless knowledge of truth. Such things, in his opinion, are mere external and quite destitute of substantial worth—they confer no real honor to him. They, adds he, who truly do honor to me, are those who practice all that is enjoined by the most excellent law; nothing short of the observance of the law can please me; the practise of the virtues leading to perfection, gives alone the right to be called my disciple. My religion can rest firmly but on such solid foundation.

These expressions make every reader understand that, in Budha's opinion, religion is not a mere theory, teaching fine moral precepts destined to excite a vain admiration in the mind, or elicit useless applause, but it is a moral and practical system making man acquainted with the duties he has to perform in order to shun vice and practise virtue. Nothing can be more explicit and positive than the notions he entertains of religion. They are worthy of the founder of a religious system, at once very eminent and admitted with more or less considerable varieties by nearly one fourth or at least one fifth of the great human family. It must be admitted that the high religious sense entertained by Budha, and communicated in all its purity to his immediate disciples, has almost vanished away in all Buddhist countries. With the people, religion consists in certain exterior observances, such as giving alms to the Talapoins, building Pagodas, and making offerings during the three months especially consecrated to religious duties. The influence of religious teachers, owing to ignorance and want of zeal, is almost null, and scarcely felt by the masses of nominal Buddhists. Were it not for the religious ingredient infused into the political constitutions of the various states, it might be safely asserted that religion exercises no control over the actions of individuals and in no way regulates their conduct. But as the religious element almost predominates in the body of the civil laws, it acts indirectly upon the people and must be allowed a great share of influence in all that regards the morals of the people. It is, therefore, to political institutions that Buddhism owes the continuation of its existence in these regions. Were it deprived of such a powerful support, there is every reason to believe that it could not retain long its hold over the masses, when regularly and extensively attacked by the followers of another system.

102. The founder of Buddhism shows himself on this particular subject a consummate moralist. He who can have spoken as he did on this truly delicate point must have been deeply versed in the knowledge of human nature, and thoroughly acquainted with its frailties and weaknesses. Budha desired to maintain the members of the assembly in a state of spotless purity. To attain that desirable object, he thinks of raising the strongest barrier against the wildest passion of the heart. No virtue, in his opinion, can withstand the incessant assaults directed against it by a daily and familiar intercourse with persons of another sex. He would have, if possible, the inmate of a cell in a monastery out of the reach of temptation itself; he knows that the best tactics against such an enemy do not consist in boldly meeting the adversary, but rather in carefully avoiding encounter with him, manœuvring in such way as to keep far from it. Hence idle conversations with female visitors are not only forbidden in a most positive manner, but their very sight is to be, if possible, sedulously avoided. When duty shall oblige a Recluse to come face to face with the enemy, it is his bounden obligation to keep at as great a distance from female visitors, as practicable. The subject of the conversation ought to be of a purely religious character; some portions of the law may be expounded: doubts of conscience may be proposed, and a solution given to them &c, &c. On such occasions, the spiritual adviser is never to be left alone, but he must be surrounded with some of his brethren or disciples, at all times very numerous in the monasteries.

It is not without interest to place oneself in the centre of the Buddhist system, and examine therefrom the motives that have induced Budha to enjoin celibacy on all the members of the assembly and enforce it with the utmost rigor, by all the means that the profoundest moralist could devise.

The philosophy of Buddhism has for its primary object to lead man into the way of freeing himself from the influence produced upon the soul by exterior objects

through the medium or channel of the senses. That influence sets in motion the various passions which darken the intellect and trouble the heart, opposing an insuperable barrier to the acquirement and intuition of truth, and to the progress towards the state of quiescence, so ardently coveted and longed for by every true Buddhist. No one is ripe for the state of Niban, as long as he retains affection for things without self. The last and greatest effort of wisdom is the emancipation of self from every possible influence created and produced by objects or things distinct from self. Concupiscence, as the meaning of the word implies, is that disposition of the soul to search after, long for, and cleave to, things placed without self. Such a disposition is diametrically opposed to the perfect independence aimed at by a fervent Buddhist, and leads to results the very reverse of those to be arrived at: it retains man in the vortex of never ending existences, and precludes him from the possibility of ever reaching the state of Niban. Concupiscence, taken in a more restricted and limited meaning, signifying the propensity to the indulgence of sensual pleasures, by the union of sexes, must even prove the greatest obstacle to the way leading to perfection, inasmuch as it fosters in men the strongest affection to external objects.

Budha is great, in his own opinion, because he has conquered all passions—not by curbing them under the yoke of reason, but by rooting them out of his very being. When he wished to become an ascetic he practised at first self-renouncing, not merely by giving up riches, palace, dignities and honors, but chiefly and principally by denying to himself and forever the enjoyment of sensual pleasures. A firm and unshaken resolution of parting for ever with his wife, concubines, and living in a perpetual celibacy, was considered as a preliminary and essential step for entering upon the course of life of a sincere searcher after truth and perfection. During the six years he spent in solitude, he laboured with unremitting zeal for securing to the spiritual principle an undisputed control over the material one, by stifling the vehemence and ardour of his passions. His austerities and mortifications during that long period had no other object but that of weakening at first, and finally destroying passions, and, in particular, concupiscence. When he is praised in the sacred writings, he is much extolled for having come out from the net of passions. His victory over concupiscence is repeatedly alluded to as the greatest of all achievements. The Master, therefore, having laid such stress on this favorite and important maxim, could not but preach and enjoin it to all his future imitators and disciples. The earliest records of Buddhism bear testimony to the paramount importance attached to the practice of chastity. It has ever been considered as an essential requirement in all those that have desired to follow the footsteps of Budha, and imitate his mode of life. No qualification ever so great and shining could be admitted as a substitute for chastity. Sciences, talents, zeal and fervor could never entitle to the distinction of member of the assembly of the perfect without having previously given up the gratification of sensual pleasures. Independently of what is found written on this subject in the Wint or book of discipline, the opinion of the Buddhist Public is, on this subject, positive, universal and absolute. He who leaves the condition of layman to become a religious, must live in a state of perfect continence. An infraction of the regulations on this point, is looked upon with horror and indignation by the people at large. The guilty individual is inexorably expelled from the religious house, after having been previously stripped of his religious dress, and subjected to an humiliating degradation in the presence of the assembled members of the community. Nothing short of such a severe treatment could satisfy a public so deeply hurt and offended in their religious feelings. How is it that the practice of perfect continence is not merely a desideratum in an individual consecrated to religion, but an absolutely required qualification, which can never be equivalently supplied by any other moral or scientific attainment? How is it that such a notion is universally adhered to by nations noted for the undoubted laxity of their morals? Can a notion so generally believed and so tenaciously retained in spite of its direct opposition to the wildest and the dearest passion of the heart, be ever called a prejudice? Is it possible to trace its connexion with some of the noblest feelings of our nature and the most refined ideas of our mind? To a superficial and biased observer many things appear contradictory and irreconcilable, which a serious, acute and dispassionate inquirer after truth readily comprehends, easily connects and accounts for, and satisfactorily reconciles one with the other.

103. On a former occasion Budha had raised his voice to bestow praises on the

memory of the great Tharioutra, whose relics he was holding on the palm of one of his hands, in the presence of the assembled Rahans. Now, a short time before he yields up the ghost, he summons all his strength and at great length, passes the highest encomium on his amiable and ever devoted attendant, the truly kind hearted Ananda. These are the only two instances mentioned in this compilation where Budha has condescended to eulogize the great virtue and eminent merit of two disciples. In Thariputra, Budha extolled the transcendent mental attainments, the heroic achievements in the practice of virtue, the fervor and zeal for the propagation of religion which had ever distinguished the illustrious friend of Man-kalau. In Ananda, the searching and keen eye of Budha discovered excellencies of a less shining and bright hue, but in point of sterling worth second to none. Ananda is a matchless pattern of gentleness, amiability, devotedness and placid religious zeal. He loves all his brethren and he is, in return, beloved by them all. His superior goodness of heart and placidity of temper secure to him an almost undisputed precedence over the other members of the assembly. Tearing the veil that conceals futurity from our eager regards, Budha foretells the future conquests to be made by the mild and persuasive eloquence of his ever dearly beloved attendant. The far spread fame of Ananda shall, in days to come, attract crowds of visitors, eager to see and hear him. The sight of his graceful, lovely and mild appearance shall rivet on his person the attention and affection of all. Enraptured at the flow of his tender, touching and heart moving eloquence, visitors shall eagerly listen to him; they will experience sadness only when his silence shall deprive them of that food their mind and heart were feasting on.

The eulogium of Ananda by Budha is unquestionably one of the finest passages of the Legend. Divested of its original beauties by having passed through several translations, it retains, however, something that charms and pleases. The reader is involuntarily reminded of similar specimens found here and there in the earliest records of antiquity.

In the instructions that Ananda is to give to laymen, it is somewhat curious to see Budha distinctly stating that Ananda will exhort the people to make offerings both to Rahans and to Pounhas, that is to say to the members of the Assembly and to the Brahmins. From this passage, it becomes evident that in the days of our Budha the two sects that were subsequently to struggle during many ages for superiority over the Indian Peninsula, subsisted free from inimical feelings towards each other. It might be said that no line of separation kept them apart indicating or pointing out their respective limits. The wide gap that was during succeeding centuries to intervene between those two great religious sects, was not perceptibly felt: its levelling results had not yet awakened the susceptibilities of the proud Brahmins. Buddhists and Brahminists lived on friendly terms and looked upon each other as brethren. The discrepancies in the respective creeds, were regarded with indifference, as involving only philosophical subtleties well suited to give occupation to ideologists and afford to disputants the opportunity of displaying their abilities in arguing, reasoning and defining. It is not easy to determine whether the conduct of Budha was regulated by a well calculated policy intended to calm the suspicious scruples of his opponents, or whether he was actuated by plain and straightforward principles. It is probable that at that time many Brahmins followed a mode of life a most similar to that of the disciples of Budha; they were, therefore, entitled to the same honors and support.

104. Budha had so much at heart the conversion of the heretic Thoubat, that the earnest desire of performing this great and meritorious action, was one of the three motives that induced him to select the comparatively insignificant country of Kooth naron for the last stage of his existence. Particulars regarding that personage would prove interesting because he is the last convert Budha made. From what has been alluded to in some Budhistic writings, regarding Thoubat, it may be informed that he was of the caste of Pounhas or Brahmins. He had studied in some of the numerous schools of philosophy, at that time so common in India. From his way of addressing Budha, there is no doubt but he was acquainted with the principal theories upheld by the most renowned Masters in those days. It is related of Thoubat that during former existences, he was tilling a field with one of his brothers, when some Rahans happened to pass by them. His brother gave abundant alms to the holy personages whilst Thoubat showed less liberal dispositions. When Budha appeared, the law was announced to the generous donor, and in company with eighteen Koudes of Brahmins, he obtained the state of

Thantapan. The rather parsimonious 'houbat obtained the favor of conversion at the eleventh hour. He must have, however, subsequently atoned for this offence, as his dispositions seem to have been of the highest order, when he came into Budha's presence. In a few hours he had gone over the four ways leading to perfection, and had become a Rahanda.

In the days of Budha, the philosophical schools of India seem to have had six eminent teachers, whose teachings exhibited on some points a considerable variance. Reading a book of religious controversy between a Christian and a Buddhist, composed more than a hundred years ago by a Catholic priest at Ava, the writer has had the chance of meeting with a faint outline of the leading tenets upheld by the six teachers, so often alluded to in this compilation. One of them maintained the existence and agency of numberless Genii, who at their will, could favor man with fortune and every possible temporal benefits, as well as visit him with their displeasure, by depriving him of all happiness, and heaping misery and all sorts of calamities over his head. Geniolatry was the necessary consequence flowing from such a principle. A second teacher denied at once the old dogma of metemorphosis, and maintained that every being had the innate power of reproducing by way of generation &c, another being of similar nature. A third one had singular notions regarding the nature of man. He said that man had his beginning in the womb of his mother, and that death was the end and destruction of his being: such a destruction he called Niban. A fourth teacher taught that all beings had neither beginning nor end, and that there existed no influence of good and bad deeds. A fifth doctor defined Niban, a long life like that of Nats and Brahmas. He saw no harm in the killing of animals, and he asserted the existence of a state of reward and punishment. The last teacher boldly asserted the existence of a Supreme Being, creator of all that exists, and alone worthy of receiving adorations.

Thoubat's mind was rather perplexed by so many contradictory and opposite opinions and doctrines. He had lived, it appears, in a state of doubt and uncertainty, fluctuating as it were between conflicting theories which could not carry conviction to his soul. He had heard of Budha and wished to hear him, hoping that perhaps he might fall in with the truth he was so ardently panting after. With these dispositions he came to the spot where Budha was lying on his couch, in the hope of easing his mind from the state of doubt, and fixing it in truth. Like a man of consummate abilities in the way of arguing and at once convincing his adversary, Budha set aside all that was put forward by his antagonist and coming at once to the point, preached to him the true doctrine. As light dispels darkness so truth disperses the mist of errors. Thoubat seeing truth, at once embraced it, gladly ridding himself from the burthen of errors that had hitherto weighed down his soul. All his doubts vanished away and he found himself on a sudden safely anchored in the calm and never agitated harbour of perfect truth.

Next to the conversion of Thoubat, follows an interesting instruction delivered to Ananda and the assembled Rahans. Here Budha displays the superiority of his lofty mind. Clinging to the principles of abstract truth he has no regard for persons or things. This material world, man included, is, in his opinion, a mere illusion, exhibiting nothing real, but only an uninterrupted succession of changes, which exclude the idea of immutable fixity. He apparently has no wish to infuse consolation into the afflicted souls of his disciples. He supposes that being all initiated in the knowledge of truth, and having entered on the ways of perfection, they must know that the person of a Budha is subjected to the law of mutability and therefore to destruction or to death. He says plainly to them that his absence from among them is a circumstance scarcely worth noticing: by his doctrines contained in the Abidama, the Thoots and the Wini, he will ever be present among them. In these sacred writings, they will possess something more valuable than his material being: they will have and enjoy the truth that was in him, and that he has communicated to them by his oral instructions. He earnestly invites them to lay stress only on that doctrine they have received from him.

It is hardly necessary to notice a serious anachronism made by the unskilful compiler of this legend, on this occasion. We know that Budha wrote nothing, and that the compilation of his doctrines and the division in three distinct portions has been the work of the three great councils held after Gaudama's death on Niban. How could the dying originator or reformer of Buddhism speak of compilations of his doctrines which were not as yet existing?

105. Budha's zeal is not chilled in the least by the cold of approaching death. His boundless knowledge enabled him to get at a glance the most intimate acquaintance of the inward dispositions of his disciples' minds. If, therefore, he asked them three successive times, whether they entertained doubts on some doctrinal points, it was not to satisfy himself that their faith was firm and unshaken. He wished to make them conscious of a fact which was felt and clearly understood by every one in particular, but was not as yet fully appreciated by the universality of his disciples. Every individual in particular was well aware of the unwavering dispositions of his mind respecting Budha's teachings, but no one had ever seen the opportunity of ascertaining that all his brethren had the same firmness of belief. On this solemn occasion, they witnessed the most comforting sight of a perfect unity of faith in all the members of the assembly. Budha revealed then one great truth which no one but himself could be acquainted with. A true Rahan, says he, has entered at least in the first way that leads to perfection—he is, therefore, no more exposed to the danger of wavering in his belief: he knows enough of truth to adhere firmly to it, and is enabled to prosecute safely his researches after what is still unknown to him. Every member of the assembly is a true believer, more or less advanced in the knowledge of the law, it is true, but at least he is conscious of his being in the right way. On this subject no doubt subsists in his mind; he adheres to Budha and his doctrines, as to the centre of truth, and never thinks for a moment to question the veracity of his doctor or to call in doubt any portion of his instructions.

The last words of Budha to the assembled Bickus, are designed to remind them of the great and vital principle he endeavoured to inculcate on their minds during the forty-five years of his preaching—viz., that change and mutability are acting upon all that exists, and are inherent to all parts of nature. This world, therefore, offering but an endless vicissitude of forms that appear and disappear, has no real existence. It is an illusion from beginning to end. As long as man remains tied up, if this expression may be made use of, to nature, he is carried away by the ever acting principle of change: no where can he find any rest or fixity, he quits one existence to pass into another one: he leaves one form to assume a different one. What happens to man, befalls all other parts of nature. From this notion Budha infers that there is nothing existing but *name* and *form*. There is no substance in nature, and therefore, no reality. So much stress was laid by Budha on this capital principle, that he bequeathed it, as his last Will, to his disciples; he wished that they would ever bear in their minds, and remember that he came among them for the purpose of making them thoroughly acquainted with it. From this cardinal point he inferred the chief conclusions that form his religious system, viz., Metempsychosis, the contempt of the world and Niban. By the law of endless changes, man is hurried from one state into another, or from one form of being into another form. Where is the wise man who could love a world, or an existence therein, when he finds no substance, no reality in it. Is he not induced or rather compelled to search after a state in which he can find fixity, reality and truth, or at least an exemption from the harassing condition of perpetual migration from one state into another.

The reader who has been almost born with and educated in Theistic notions, and who sees in the world nothing but what has been created by a supreme and all wise Being, is at a loss to understand how a grave philosopher, as undoubtedly Budha was, gifted with great powers for observing, arguing, discussing and inferring conclusions, could have fallen into errors so glaring and so contrary to his reason. That we might properly appreciate the efforts of such a genius, and have some correct ideas about his process of arguing, we must divest ourselves of the knowledge supplied to us by revelation, and descend to the level occupied by the founder of Buddhism. Unacquainted with a first cause, or with the existence of a supreme Being, he studies nature as he finds it. What does he see in it? Perpetual changes, endless vicissitudes. The form that he perceives to-day has undergone some change on the following day. Every thing about him grows, reaches a certain point and then falls into decay. He finds nothing that stands always in the same condition. Hence he proclaims the great law of mutability pervading all nature, and concludes that all that we feel, see or hear is illusion and deception, &c, &c, deprived of reality, fixity and substance. His philosophical mind is not satisfied with such a discovery. He pants after truth and reality which is not to be found here. He feels that he must disentangle himself from the condition of illusion and decep-

tion. But where is to be found reality, and fixity? beyond all that exists in Niban.

106. What is Niban, the end a true Buddhist ever longs for during his great struggles in the practice of virtue and his constant efforts for attaining to the knowledge of truth, and which he finally reaches when he has become perfected? The writer confesses at once his inability in answering satisfactorily this question, because Buddhists do not agree among themselves in explaining the nature of the state of Niban. From the earliest period of their religion, we see the Brahmins keenly taunting their opponents for the discordance of their opinions on a subject of the utmost importance; a subject which had ever been prominent in Buddha's teachings, and held up as the only one becoming a perfected being, the object of his most earnest and ardent desires, and the state in which his soul, wearied after such a prolonged spiritual warfare, longed to rest for ever. A certain school of Buddhists has maintained that Niban implied the destruction of the state of being, and consequently a complete annihilation. This opinion is at once rejected by the southern Buddhists, who assert that a perfected being after having reached Niban, or at the end of his last existence, retains his individuality, but they utterly fail in their attempts at explaining the situation and condition of a being in Niban. At a later period, the opinion about a supreme Budha, uncreated, eternal and infinite, began to gain ground and modified to a considerable extent on many points the views of the earlier Buddhists. Niban, according to the comparatively modern school, was but an absorption into the supreme and infinite Budha. This opinion approximated to that of the Brahmins, or it was almost the same. The means to obtain perfection were somewhat different in both systems, but the end to be obtained was precisely the same.

Setting aside idle speculations, let us try to form some idea of Niban by explaining the meaning of the term, and the definition such as we find it in the Burmese writings.

The word Niban, in Sanscrit Nirvana, according to its etymology means what is no more agitated, what is in a state of perfect calm. It is composed of the negative prefix *nir* and *va* which means to be set in motion, as the wind. It implies the idea of rest by opposition to that motion or existence. To be in the state of Niban is therefore to be placed beyond existence as understood by Buddhists; there can be no longer migration from one state of being to another. This point is admitted by all sects of Buddhists. To the idea of Niban is often attached that of extinction, as a lamp which ceases to burn and its light becomes extinct, when the oil is exhausted. The scene of existence being exhausted, a being ceases to be or to move within the range of existence; he becomes extinct relatively at least to all kind of existences we have a notion of. In conversing with the Buddhists of Burmah the writer observed that the ideas of rest and extinction were invariably coupled with the notion of Niban. In their rough attempt at explaining the inexplicable nature of the state, they had recourse to several comparisons, intended to convey to the mind that they believed Niban to be a state of undisturbed calm, and a never ending cessation of existence. When questioned on the situation of Budha in Niban, they answered that they believed him to be in a boundless space or vacuum, beyond the boundaries ever reached by other beings, alone with himself enjoying, if the expression be correct, a perfect rest, unconcerned about this world, having no further relation with all existing beings. They asserted that he was for ever to remain a stranger to all sensations of either pain or pleasure. Talking one evening with a well informed Burmese on Niban, the light of a lamp that was burning on the writer's table happened to die away for want of oil, the Buddhist with an exulting tone of voice exclaimed: do not ask any more what Niban is; what has happened to that lamp just now, tells you what Niban is, the lamp is extinct because there is no more oil in the glass; a man is in Niban at the very moment that the principle or cause of existing is at an end or entirely exhausted. How far such an answer can satisfy a superficial mind like that of a half civilised Burmese, it is difficult to say, but it appears certain that he does not carry his researches nor pursue his inquiries beyond these narrow boundaries. Any further attempt to penetrate deeper into the darkness of Niban is in his opinion presumptuous and rash. Buddhist metaphysicians in India in their foolish efforts to survey that *terra incognita*, have originated several opinions that have had their supporters in the various schools of philo-



sophy. The more ancient philosophers or heads of schools in attempting to give an analysis of a thing they knew nothing about, approximated to the opinion that Niban is nothing more or less than complete or entire annihilation. Following the course of arguments, and admitting their premises, one is reluctantly compelled to come to the awful conclusion that the final end of a perfected Budha is the destruction of his being or annihilation.

From a long period the plain sense of the masses of believers, unprejudiced by sophistical bias, revolted against and at once rejected the horrible conclusion arrived at by former disputants. No one in our days admits that Niban and annihilation are synonymous terms. If their views can be properly understood, we may infer from what they say that a being in Niban retains his individuality though isolated from all that is distinct from self: he sees the abstract truth or truth as it is in itself, divested from the material forms under which we but imperfectly see it in our present state of existence. Passions and affections are not to be found in such a being; his position in truth can scarcely be understood and still less expressed by us who can never come in communication with an object but through our passions and affections. We know that there exists a spiritual substance, but we can have no distinct idea of it. We vouchsafe for its existence by what we observe of its operations, but we are in the impossibility of explaining its nature. It is not therefore surprising that Budhists should be at loss to account for the state in which a perfected being is in Niban. The idea of a state of apathy or rest must be understood as expressing simply a situation quite opposite to that of motion in which all beings are, as long as they are within the pale of existences. If it be admitted that the perfected being retains in Niban his individuality, it must be inferred that he becomes, as it were, merged into the abstract truth, in which he lives and rests for ever.

Let us come now to a definition of Niban translated from Pali by the Burmese. Niban is the end of all existences, the exemption from the action of *kan*, (the good or bad influence produced by merits or demerits) of *Tsit*, (the principle of all volitions, desires and passions) of the seasons, and of taste or sensations. What means this rather curious not to say almost unintelligible definition. To understand it, the reader must be aware that *kan* is the principle which causes all beings to move incessantly from one existence into another, from a state of happiness to one of happiness, from a position where merits are acquired, into another where further merits are to be obtained and greater proficiency in perfection secured, from a state of punishment or demerits into a worse one &c. *Kan* may be called the soul of transmigration, the hidden spring of all the changes experienced by an existing being. In Niban the law of *kan* is destroyed, and therefore no more of changes or transmigrations.

By *Tsit* is understood the principle of all volitions and desires. Buddhist metaphysicians, always fond of divisions and classifications, reckon 120 *Tsits*. Some are the root of all demerits, and their opposite are the principle of merits. Some have for object matter or this material world: others have for object the immaterial world, or as I believe, truth taken in an abstract sense. The last of all, and, of course the most perfect, is the reaching infinity, which is the last stage of a perfected being in the world of existences: one step farther and he has reached the undisturbed shores of Niban. In that latter state, there is no more operation of the mind nor of the heart, or at least there is no intellectual working such as we conceive it in our actual condition.

The word *Udoo* or seasons, is evidently used for designating a revolution of nature. The meaning is obvious and affords no difficulty. In Niban there is neither nature nor revolutions of nature. Niban lies in vacuum or space, far beyond the extensive horizon that encircles the world or worlds, or systems of nature.

The word *Ahara*, which literally means taste, is intended to designate all sensations acquired through the senses. Through senses, indeed, we acquire knowledge, but the perfected being having come to the possession of universal science, no further knowledge is needed; senses are, therefore, useless. Senses moreover, are the appendage of our nature, as it is during its existences. Niban putting an end to further existences, it destroys too the constituent parts of the material portion of our being.

Admitting that the above definition of Niban is a correct one, and that it has been understood in a purely Buddhist sense, we may conclude that in that

state, there is no more *influence* and consequently no transmigration, not volitions of the mind, no desires of the heart, no materiality, and no sensations. The difficulty as to whether Niban is annihilation or not, is from being as yet solved. It is necessary to ascertain what are the constituent parts of an intelligent being, and then to enquire whether these parts are entirely destroyed and annihilated in Niban. In an intelligent being, according to certain doctors, we find materiality, sensations, perceptions, volitions and intellect. These five aggregates constitute a thinking being. They, assert the same doctors, do not exist in Niban: they are destroyed. One word more, and the question would be settled: but that word has not been, at least to my knowledge, ever uttered. It is probable that these five aggregates or component parts, are the conditions of existence such as we now understand it. But it would be rash to conclude that a being under different conditions of being, could not retain his individuality, though deprived of these five component parts. Buddhists, as already said, have very imperfect notions of a spiritual substance; it is not surprising that they cannot express themselves in a manner more distinct, precise and intelligible when they treat of subjects so abstruse and difficult. In practice they admit the existence of something distinct from matter and surviving in man, after the destruction of the material portion of his being, but their attempts at giving a satisfactory explanation of the nature of that surviving individuality has always proved abortive.

The question, as may be inferred from the foregoing lines, if considered in the light of purely theoretical notions, is still open to discussion and will probably ever remain without a perfect solution. If examined from a practical point of view, that is to say, taking into account the opinions of the masses of Buddhists, the difficulty may be considered as resolved.

107. The lengthened description of Budha's funeral, has suggested the idea of laying before the reader, a brief account of the ceremonies observed by Buddhists in Burmah, when funeral rites are performed on the mortal remains of Talapoins who have been eminent in the profession and have spent their whole life in monasteries. By comparing the following account with the narrative of the legend, we will see that the rubrics of the funeral service in our days, are nearly the same as those existing at the origin of Buddhism.

When a Buddhist Recluse has given up the ghost, the corpse is carefully and diligently washed by laymen or the younger inmates of the monastery. A large incision is made in the abdomen; its contents are taken out and buried in the earth without any ceremony being observed on the occasion. The empty cavity is filled up with ashes, bran or some other desiccative substances for preventing putrefaction. The corpse is then tightly wrapt with bands or swathes of a white color from head to feet, and then covered with the yellow habit of the profession. It is afterwards bound up all over with ropes tightened as much as possible, so as to bring it within the narrowest dimensions. When thus prepared, the corpse is placed in an open coffin. The coffin is made of the trunk of a tree rudely hollowed, and often so imperfectly scooped out as not to afford sufficient room for the corpse. In the middle of the interior part of the coffin, an opening about three inches in diameter has been made, to afford issue to the humors that may ooze out through the swathes. The coffin is unceremoniously laid on the floor of the monastery. A bamboo 7 or 8 feet long is procured: one of its ends is inserted into the hole made in the coffin, and the other is sunk into the ground below: it is the channel through which the humors flow into the earth. After a lapse of ten or twelve days, the body is supposed to be quite dry: they set about putting a covering over the coffin and effectually shutting it. Whilst residing in Burmah I wished on a certain day to go and see all the particulars observed on such occasions. A most favorable opportunity favored the prosecution of my wishes. A Talapoin of my acquaintance had died a fortnight before, after thirty years of profession. His body laid in the coffin was to be for ever concealed from human sight. I went into the monastery where I met a large party of the brethren of the deceased, who had assembled for the ceremony. Most of them were known to me: my reception was at once kind and cordial.—Great was my surprise at seeing, instead of grief and mourning, which the circumstance seemed to command, laughing, talking and amusement. No one appeared to take the least notice of the deceased whose corpse was lying at our feet. A momentary stop

was put to the indecorous behaviour of the assistants by the appearance of two stout carpenters bringing a board four or five inches thick, designed for the cover. They vainly tried to fit it in its place: the hollow of the coffin was neither broad nor deep enough for holding the corpse though reduced to the smallest proportions. The operation was not a very easy one to bring the board in contact with the sides of the coffin, despite the resistance that was to be offered by the corpse: the carpenters were determined not to be disappointed. At the two ends and in the middle of the coffin, the ropes were passed several times round the coffin with the utmost tension, in such a manner as to have six or seven coils in the same place. Enormous wooden wedges were inserted right and left of the three places, between the sides and the coils. On these wedges the workmen hammered with their whole strength, during about 20 minutes, to the great amusement of all the bystanders. Each blow of the hammer lessened the distance between the cover and the brim of the coffin. every perceptible success gained over the latent resisting power, elicited a burst of applause, and a cheer to the persevering workmen. At last all resistance being overcome, the cover rested fixedly in its place. It is needless to add that the corpse inside was but a hideous mass of mangled flesh and broken bones.

According to the custom observed on such occasions, a rude building was erected for the purpose of placing therein the mortal remains of the deceased, until preparations on a grand scale should have been made for doing honor to the illustrious departed individual. That building as well as those made for similar purposes are but temporary edifices raised for the occasion, and made of bamboos with an attap roof. In the centre of that large bungalow was erected a kind of estrade, about 12 feet high, well decorated. The upper part is often gilt, but always plated with thin metal leaves of various colors. From the sides hang rough drawings representing animals, monsters of various kinds, religious subjects, and others of the grossest indecency. Around this estrade are disposed posts, from the top of which are suspended small flags and streamers of different forms and shapes. On the summit is arranged a place for the coffin, but the four sides at that place are about two or three feet higher than the level whereupon rests the coffin, so that it is concealed entirely from the sight of the visitors.

Things remained in that state during four months, that is to say until all the arrangements had been made for the grand ceremony, the expence of which is commonly defrayed by voluntary contributions. The arrangements being all complete, a day was appointed at the sound of gongs for burning the corpse of the pious Recluse. At noon of that day the whole population of the town flocked to a vast and extensive plain beyond the old wall and ditch, in the North. Men and women dressed in their finest attire swarmed in every direction, selecting the most suitable and convenient situations for enjoying a commanding view of the *fete*. The funeral pile occupied nearly the centre of the plain: it was about fifteen feet high, of a square shape, encased in planks which gave to it a neat appearance. It was large at the base and went on diminishing in size in the upper part, terminating in a square platform where the coffin was to be deposited. A small roof supported on four bamboo posts, elegantly covered or overshadowed the platform. A huge four wheeled cart decorated in the most fantastic manner, was descried at a distance: it was drawn by a great number of men, and brought to the foot of the pile. Upon it was the coffin. Immense cheers, shouted by thousands, had announced the progress of the cart with its precious relics, as it passed through the crowd. It was forthwith hoisted on the platform. Mats were then spread round the pile, whereupon sat numbers of Talapoins, reciting aloud long formulas in Pali. These devotions being performed they rose up and prepared to depart, attended with a retinue of their disciples, who loaded themselves with the offerings made on the occasion. These offerings consisted of plantains, cocoanuts, sugar canes, rice, pillows, mats, mattresses &c &c. Masters and disciples returned to the monasteries with their valuable collections.

The place being cleared, the eyes were all rivetted on two large rockets, placed horizontally, each between two ropes to which they were connected by two side rings. One of the ends of the ropes was strongly fixed at posts behind the rockets and the other was made as tight as possible at the foot of the pile. At a given signal, the rockets emitting smoke rushed forward with a loud but irregular noise, tremulously gliding along the ropes, and in an instant penetrating into the interior of the pile and setting fire to a heap of inflammable materials amassed beforehand

for that purpose. In a short while, the whole pile was in a blaze, and soon entirely consumed with the coffin and the corpse. The bones or rotten bits of bones that remained were carefully collected, to be subsequently interred in a becoming place.

108. The virtuous and zealous Kathaba was at once convinced of the absolute necessity of soon holding a meeting of the wisest members of the assembly, for the purpose of ascertaining and authoritatively determining the genuineness of Budha's doctrines. Human passions were already at work deforming more or less in various ways the instructions of the great Preacher. Many, laying more stress on their talents, than on the authority of their departed instructor, began to entertain on certain questions, views and opinions evidently at variance with those of Budha. The enemies of truth were numerous, even during his life time, when as yet overawed by his presence and matchless wisdom. He sagaciously foresaw their number and boldness would soon increase to a fearful extent and threaten the very existence of religion. Kathaba was roused to exertions by such considerations, and on that very moment, he resolved to assemble the Elders of the Assembly, as soon as convenient after Budha's funeral. He was it appears acknowledged by common consent as the first of the disciples. He was entitled to that distinction by the renown of his abilities before his conversion, and by his great proficiency under Budha's teachings subsequently to that event. But the circumstance related by Kathaba clearly indicates the intimate familiarity existing between the master and the disciple, and the unbounded confidence the former placed in the latter. During a walk, the two friends, if such an expression be allowed, had entered into a more than unusual intimate communion of thoughts and feelings: the soul of one had passed into the person of the other or rather both souls were blended together, and united so as to become one, in the bosom of a virtuous, high, refined, sublime and philosophical friendship. They made an exchange of their cloaks. Kathaba, by putting on Budha's cloak, inherited, as it were, his spirit and his authority. Hence his legitimate right to be appointed President or head of the first Council, assembled a year after Gaudama's Nibban.

109. The Burmese translator finishes his work, by candidly stating the motives that have induced him to undertake it. He desires to create, promote and propagate in the heart of future generations religious sentiments, and feelings of the tenderest affection for the person of Budha, his doctrine, that is to say the law, and the Assembly of the Perfect: such are the lofty objects he had in view when he began to write. He was encouraged in his difficult task by purely religious considerations, viz the promotion and triumph of Buddhism. For securing the attainment of what he considered to be a most desirable end, he summoned all his abilities with a most praiseworthy energy and perseverance.

With a somewhat different object in view, the Burmese work has been translated into an European language. The translation has been accompanied with notes intended to explain the text, which would otherwise prove, in many parts, almost unintelligible to the generality of readers. The principles of Buddhism, such as they are held and professed in Burmah, have received a certain degree of attention, and have been examined as carefully as possible, from a Buddhist point of view. That great religious system has been considered as it is in itself, without any regard to its intrinsic merits or demerits. The notes are not designed to be an apology or a confutation of Buddhism, but an exposition of its doctrines, such as they are found in the best writings and believed by its votaries. When certain tenets or practices were to be accounted for, recourse has always been had to the general principles of Buddhism and to the notions certainly prevailing at various periods in Buddhist countries. It is needless to add that these notes, having been hurriedly written in the midst of almost uninterrupted and time absorbing occupations, and often from old reminiscences, are destitute of pretensions either to deep research or scientific merit. In former years the writer had bestowed a certain amount of time and efforts on the study of Buddhism, in a country where it has been for years the only religious creed. A portion of the knowledge thus acquired, he has embodied in the foregoing notes, with the intention of compressing within a narrow compass the elementary principles and general notions of Buddhism, affording thereby to the readers who cannot have access to the voluminous writings of the French and German Orientalist *Savants* on the great religious system of Eastern Asia, comparatively easy means to obtain some information on a religion, which, false as it is, deserves to be known and understood, since in point of antiquity it is second to none except to Brahminism, and extends its sway over one fourth of the human race.

[THE following paragraphs in Chap. V of the "Ethnology of the Indo-Pacific Islands," belong to Sec. II. "Glossarial Indications of the Ethnic history and relations of the Dravirians Languages," and were accidentally omitted in printing that section. They should come in on page 213 of the present volume and precede the para. commencing "The following are illustrations from Semitico-Libyan," &c.]

As the Scythic languages appear to have always been located in Upper Asia, and they still preserve a form that allies them closely both with the monosyllabic and with all the harmonic languages, it is probable that the mother tongues of the more outlying and widely separated families of the World were intimately allied in their glossaries to the primary Scythic ones. A comparison of the various Scythic names for some of the parts of the body may thus be considered as the first step towards ascertaining the true relations of the names for the same objects in any of the other families, as the Dravirian or Draviro-Australian.

A very slight examination of the Scythic names for the parts of the body shows that we are dealing with one really primitive vocabulary, which has suffered dialectic changes almost without limit. The same primary roots are found in all the languages from the Kamchatkan to the Hungarian. The same secondary or dialectic forms and compounds are found in numerous vocabularies of the same and of different groups, sometimes preserving the same application and sometimes varying in this respect. Most of these variations are evidently archaic. They were formed in that early stage of language when fixed conventional names had not been appropriated to each part of the body, but several were described by the same primitive roots, the distinctions being indicated by the addition of other words and partly, in all probability, by gesture. In time various dialectic changes of the kind we have indicated took place, and the same root became current in a multitude of forms and with different conventional limitations of meaning. The history of these changes is probably too complex to be completely recovered, and the many blendings and extinctions of dialects that must have occurred since they commenced, have obscured and diminished the glossarial evidence.

The Scythic roots for the principal parts of the body are the labial; the guttural; the sibilant and dental; and the liquid (*n, l, r*),—that is, all the primary sounds. Of these 4 roots the 3 last are not strongly distinguished. *R* and *S*; *S*, *T* and *D*; *D*, *N*, *L* and *R* are evidently merely variations of each other in several cases. The roots are monosyllables of 3 forms, 1st, the consonant followed by a vowel, which varies sometimes even in the same group; 2nd the consonant preceded by a vowel: 3rd, the preceding forms followed by a final consonant, vocalised or not. The terminal consonant varies, and it appears in general to be purely phonetic or non-radical. The most common terminal is the liquid *n, l* or *r*. After it *s, t*, is the most frequent, but as *s* and *j*

are much interchanged, these two classes are not well distinguished. The labial and guttural are much rarer. The 1st form, pure or with a final consonant, is the most common. The 2nd is chiefly found in the Ugrian languages, and as similar forms are produced by the elision of an initial radical consonant, it is not always easy to decide whether the Ugrian consonant is radical or not. Reduplicated forms of all the roots occur. Besides these forms, others occur in which a definitive is attached to the root, generally postfixally. The definitive is sometimes a simple vowel, generally prefixed, but most frequently a consonant, generally postfixed, and either simple with a final or initial vowel, or such a monosyllable with a final consonant. Double postfixes also occur. It is often difficult or impossible to decide whether the final consonant is a postfix or part of the root. Where the root has a final consonant the servile character of the superadded consonant is in general free from doubt.

The following examples will illustrate this diversity of forms. 1st, *pa, ba, wa, va, pi, pu, po, &c*; 2nd, *ap, ab, ip, ib, up, ub, op, ob, &c*; 3rd *pan, pin, pen, pon, bar, bir, bur, pat, pit, pet, put, pas, pis, pus, apt, ipt, upt, obt, &c*; 4th, with a def., *palan, pilga, wilyt, pilye, wilugi, wilyulgi, burun, pank, pankt*; 5th *papa, mimi*.

The appended table of Scythic names of parts of the body is intended to facilitate the comparison of the roots.\* I have thrown into it all the vocables that are found in Klaproth's *Asia Polyglotta*, for Head, Face, Eye, Hair, Mouth, Lip, Teeth, Tongue, Nose, Ear, Hand, Finger and Foot, and the arrangement is purely phonetic. In several instances words that resemble each other in sound may be varieties of roots independent in their origins. But there can be no doubt that a large proportion of those vocables that associate themselves phonetically in the table are also radically cognate. Such a table for ethnological purposes should contain not only all the names of parts of the body, but the roots in all their other applications, and when a thorough Scythic philologist appears we may hope to obtain tables of this kind. Without such comparative vocabularies of groups of roots in every family of language, it is impossible to ascertain with precision the various degrees of affinity which connect any given language or family with others.

\* This will be given with similar tables for other families.



ERRATA IN CHAP. VI SECS. 1, 2, 3 and 4, OF "ENQUIRIES INTO THE  
ETHNIC HISTORY AND RELATIONS OF THE TIBETO-ULTRAINDIAN  
AND MON-ANAM FORMATIONS," IN THE PRESENT No.

- Page 385, 11th line from the bottom *for these read those*  
 386, 4th line from top *for Gangitic read Gangetic*  
 389, last line, *for r-lik read i-lik*  
 390, 10th line from bottom *for all of read of all*  
 391, 14th line from top *delete \**  
 " 15th line from top *after vocabularies insert \**  
 " 8th from bottom *after s insert* ,  
 394, 7th line from top *after Jili insert* ,  
 " 11th line from top *after being and manner insert* ,  
 " 12th line from top *after province insert* ,  
 " 13th line from top *alter Hor insert* ,  
 " 15th line from top *after range insert* ,  
 " 16th line from bottom *after Thochu insert* ,  
 " 9th line from bottom *for root read roots*  
 " 8th line from bottom *after Chinese, insert —*  
 " 7th line from bottom *after former, insert —*  
 " 6th line from bottom *after Tatar, insert —*  
 " 3rd line from bottom *after dialects insert* ,  
 " 2nd line from bottom *after Chinese insert* ,  
 395, 10th line from top *for portion read proportion*  
 " 11th line from top *after vocalic insert* ,  
 " 12th line from top *after words insert* ,  
 " 10th line from top *for which in read which is*  
 " 14th line from bottom *after Manyak insert :*  
 396, 8th line from bottom *for brigi read brigi*  
 397, 6th line from top *after labial and Gyarung insert* ,  
 " 8th line from top *delete b in and insert bi,*  
 " 11th line from top *after prefixes and infrequent insert* ,  
 " 13th line from top *for mo-; k-, read mo-; ki-, and delete cha-, ki-,*  
 " 15th line from bottom *for probably read probable*  
 398, 3rd line from top *after trait insert* ,  
 " 12th line from top *after present delete ) and after generic insert )*  
 " 14th line from top *for localitive read locative*  
 " 16th line from top *for ka-, ta-, read ka-ta,*  
 " 17th line from top *for ta-, ta- read ta-ta*  
 " 10th line from bottom *for Tibetan read Tibeto*  
 399, 11th line from top *after crudes insert* ,  
 400, 10th line from top *for hazang read hazang*  
 400, 10th line from bottom *after origin insert* ,  
 " 8th line from bottom *after province insert , after retained insert*  
 " *after degrees insert* ,  
 " 2nd line from bottom *after form insert* ,  
 " 2nd line of the note *after pronoun delete . and insert ;*  
 401, 3rd line from top *after definitive insert* ,  
 " 6th line from top *after substantival insert* ,  
 " 4th line from bottom *after pronoun insert* ,  
 " 3rd line of the note *after shui, insert sa,*  
 402, 15th line from bottom *for ngo read ngo,*  
 " 11th line from bottom *for formations read forms,*  
 " 7th line from bottom *after form insert* ,  
 " 5th line from bottom *after Bhotian insert* ,  
 403, 5th line from top *for Tunzihu read Tungthu,*  
 " 7th line from bottom *for nom, read nom. for peu read poss. for n,*  
 " *and p, read n. p.*  
 404, 6th line from top *after chha insert* ,  
 " 11th line from top *for -gen read -gen,*  
 " 14th line from top *delete I being a common Bhotian augment,*  
 " last line of the note *for analogy read analogy,*  
 405, 11th line from top *for peu read heu,*

- Page.
- 13th line from top *after khui insert* ,  
 15th line from bottom *after also insert* ,  
 11th line from bottom *for cha-ta read cha-tu* ,  
 406 15th line from top *after-sin insert* ,  
 17th line from top *for Nyertshinsk read Nyertshink* ,  
 407, 12th line from top *after -ra-ng insert* ,  
 7th line from bottom *after Klaproth insert* ,  
 3rd line from bottom *for seen read seen* ,  
 last line *after Ultradian insert* ,  
 408, 15th line from top *after &c insert* ,  
 5th line from bottom *for Kyan read Kyau* ,  
 409, 10th line from top *for Kyan read Kyau* ,  
 18th line from top *for 2 read 2nd* ,  
 19th line from top *after kho insert* ,  
 16th line from bottom *after dialects insert* ,  
 15th line from bottom *after and insert* , *after the insert* , *after da insert &c.*  
 13th line from bottom *after Gurung, insert the*  
 7th from bottom *after &c. insert* , and *for Da read Drav.*  
 409, 6th line from bottom *after Scythic insert* ,  
 3rd line from bottom *for lar, ler, read lar, ler* ,  
 410, 5th line from top *for -lu read -lu*  
 11th line from top *for -kye read -kyi*  
 15th line from bottom *after Naga insert* ,  
 13th line from bottom *after Abor-Miri insert* ,  
 3rd line from bottom *for ngar read ngai*  
 411, 2nd line from top *after def. and Bhotian insert* ,  
 15th line from top *before is insert* . It  
 412, 14th line from top *after tu insert* ,  
 16th line from bottom *after numeral insert* ,  
 4th line from bottom *before Tibetan insert* ,  
 413, 7th line from top *for Bhotian read Bhotians*  
 415, 16th line from top *for naga read Naga*  
 417, 8th line from bottom *after ana-ta insert* ,  
 7th line from bottom *after tu insert* ,  
 4th line from bottom *after more insert or less*  
 3rd line from bottom *after Chinese insert* ,  
 last line *after pron. insert* ,  
 418, 2nd line from top *after Dravirian insert* ,  
 3rd line top *for respect read respects*  
 5th line from top *after particles insert* ,  
 6th line from top *after forming insert* ,  
 7th line from top *after Chinese insert* , *after dialects insert of*  
 8th line from top *after European insert* ,  
 9th line from top *after Bhotian insert* ,  
 11th line from top *after languages insert* ,  
 14th line from top *after allied delete* -  
 422, 5th line from the bottom, *for The read It is the*  
 423, 18th line from the bottom *for ni' read ni*  
 424, 22nd line from the bottom *for no-ro-ka read ng-ro-ka*  
 426, 14th line from the top *after def. add g-, and after b- delete g-*  
 427, 17th line from the bottom *for Athapas, can, read Athapascan*  
 430, 17th line from the bottom *for pull read pu-li*  
 5th line from the bottom *after nyet, add was*  
 432, 9th line from the bottom *after all, add the*  
 435, 6th line from the top *for 31 read 25*  
 436, 5th line from the top *for affirmatives read affinities*  
 438, 15th line from top *for , at read . At*



## PART II, CHAP. VI, SEC. 5 (Continued).

## COMPARATIVE VOCABULARY OF HORPA.

## a. Bhotian.

1. *Air*, pu ryu, Thochu mo-zvu, Bhotian lung ma.
2. *Ant* s-khro, Thochu tu khia, Manyak ba ra ha, Gyarung ko-rok, Bhot. g-rog ma.
3. *Arrow*, l-da, B. m dah, da, T. jah, Takpa m la.
6. *Boat* g ra, B g ru.
7. *Bone*, rera, T ri-pat. The others are broad, rus, ru, rhu. Lea-gian re, r., lu, ro, Drav. eruma &c.
12. *Day* nye le, G nye, Takpa nyen ti. B. nyir mo, nyi mo.
14. *Ear*, nvo, T. nukh, B. r na, Chepang no, Kar' nho.
15. *Earth* k cha, B. sa.
16. *Egg* s ganga, B. s gonga.
17. *Elephant* jamo-chhen, G. lang-chhen, Sukpa lhabo-che, B. g-lang ch-u (Ch.)
19. *Father*, apa, M. Takpa apa, B. pha.
20. *Fire* u aa', B. me, Aka u mah (Ch.)
21. *Fish*, hva, B nva, Lhop. ngya.
22. *Flower*, meto, M. Takpa mento, B metag.
23. *Foot* ko, B r-kang pa, Manip a kho, Yuma ka-kong &c (Ch.)
25. *Hair* spu, B. spu, Takpa pu, M. mui, Dhimal sui tu (Ch.)
26. *Hand* tha, B. lag-pa, Takpa la, M. la p che' Lhop. la pa, G. ta yak, Naga yak.
27. *Head*, gho, B. mgo, Gyar., Naga ta-ko; Takpa gok ti, Manip: kek
28. *Hog* vah, M. wah, Takpa pha, B phag. phak.
29. *Horn*, k run-bo, B. ra, T. tak, M ru bu, Takpa ru ba, G ta-ru; Garo ko rong Sunw gu ro &c.
32. *Iron*, chu, G sho m, T. ser mo, Sokpa thu mar, B /chags, chhya, Yenit, tu p, ti p, Mong. tu m ur, te m-ur, thu m ar, Suaheli chu-m-ar, Kar-a suv, Chin thiat, thi.
33. *Leaf*, ba la', T. kpa b la p, B lo ma.
36. *Monkey* zum de' B sp. tyu, Gr ti.
37. *Moon*, s lik-no, G. tsi le, chi le', T. le', M lhe', B. z la va, da-sa. The Horpa form appears to preserve an archaic cons. final softened in G, T. and M into the abrupt accent Comp. Chin. ngiat, Samoiedo i-ret, i r-da, Chukchi ira luk, Pagai lago, Meri leka.
38. *Mother* ama, B., M, T. ama.
39. *Mountain*, ri'-rap, B, T ri (Ch.)
40. *Mouth* ya, B, T. kha, G ti khe, M. ye-ba. Ch. (Ch.)
42. *Name* s men, B, G, M mnu; Takp. myeng.
44. *Oil* mar-nak, B k-bru mar, T. kya mar.
48. *Salt* chha', B chha
51. *Snake* phri, G kha bri, T. bri gi, B s brul.
52. *Star* s gre, B. s ka' ma, M. kra', Burm. kre-
54. *Sun* goa, B nyi-ma.
55. *Tiger* s tak, B s tag, tak.
56. *Tooth*, syu, B co,
60. *Kam*, zo, B. du-va, tho-ma.

## b. Chinese.

4. *Bird*. gyo, C. chio.  
 5. *Blood*. eye, sek, C. sye. (B., T., and M. have the broad form thak, sah &c.)  
 10. *Cow*. ngau-wak, C. ngni, also Lau, Mon.; G. nye nyi, Barm. ngi.  
 18. *Eye*. mo, Ch. wak, Mon. root.  
 [17, 20, 23, 25, 39 and 40 are Bhotu-Chinese, making the entire number of Chinese words 10.]

## c Non-Bhotian.

- (9, 11, 13 and 34 are Bhotian in root).  
 9. *Cat*. chu la' M. ma cheu. The la' is found in T. lo chi, B. byi la, N. Tangkal la me. The chu, cheu appears to be a broad form of the Thochu chi, Bhot. si of si mi. The Maring tung, Khoibu tong kan, is the same root. Probably also it is found in the Manipurian ta khu, khu. bui, a khu. bi, sa khwu, tiger. The byi, me, mi, bi, bui in the above words is a generic term for quadruped.  
 11. *Crow*. kale, M. kali, Sokpa khere, Mishmi tsa-kla, Champh. khala, Garo koura. Serpa has ka lak (Bhot. ab lak, Gyar. ta b-rok) Sansk. kara-ta. ? root kara. kala &c black.  
 13. *Dog*. kala', Koriak gotian. Hind. kutta, Austr. kōla (see Manyak)  
 24. *Goat* chhe, T. M. tsah, G. ku so, Chepang mi-cha, Dhim. ee-cha, Aka sha bam &c  
 30. *Horse*. rhi, ryi. Sokpa ma ri, T. ro', Gr. bo ro', M. bo ro', bro' (Ugr. lo, lu, log)  
 31. *House*. hyo, Karen hi, Mon he, hien.  
 34. *Light* s phu, Mon Anam sa wang &c, Tak. wot, M. wu', T. nik (root Scythic)  
 35. *Man* vz'ih, Deor. Ch. mo si, Kyo ma shi, N. Tangk. pa sa, Jili n sang, Naga me sung, Sulu u sug, Fin shiesi, Yukahiri kun shi, Turk. kishi, Lesgian chi, Abasian ka izha.  
 41. *Mosquito*. vana, Karen patso, Kambojan mus, Sansk. mashakā (a common root for fly &c.)  
 43. *Night*. s phu, Manipuri Dialects maya, mea, Samoiede po.  
 46. *River* hra', T. cha bra', M. dyu', Tablung Naga riang, Mikir lang pi, Champhung urai (see Water).  
 47. *Road*. che', Angami Naga chah.  
 49. *Skin*. gla, M. gra', (? g la, g ra see Thochu), Mozome Angami bi khar Sindh., Hind. khal, Ostiak kur-parga, Lesg kuli. Malay &c, kulit.  
 40. \*ky. ko.  
 53. *Stone*. r game. The gutt. root is common, but with l as the final. Fin has kiw.  
 57. *Tree*. nah, Mon ka non, Aino nyh, Pashtu ona.  
 58. *Village*. rhava.  
 59. *Water*. hra', Chepang lang, Nankowry rak, Newar Yenise. la, dok, ur, ul, Turk. yrratseh, ir-mak.

## COMPARATIVE VOCABULARY OF THOCHU.

## a Bho'ian.

1. *Air*. mo zyu, H. pu syu, B. lung ma; Manipuri ma su &c,  
 2. *Ant*.

3. *Arrow.*

5. *Blood.* sa', M. sha', B. thak, (Tungus shok sho, sug al. sho-ma), Singfu sa, Bama za, zais, Lumbu lak shok-pa (Comp. Water dok Yama, dak. tak &c. Kamhoja group.

7. *Bone.* r-pa t. B. rus-pa, Hor. rera. The slender form is not found in other T.—U. vocabularies, save Lepcha a the t, but it is Samoiede ly, Ugrian ly, Caucasian li ka, and it also occurs in Aconesia, ri Tarawa, li d Eub. r uk Salar. The double postf. resembles that of the Galle la fu ti. The double Horpa re-ra resemble the Caucasian lu-l, and Komcong lu-lor, the original of the last being probably the T.—U. lung, Ahor.

9. *Cat.* lo-chi (see Horpa).

12. *Crow.* nyag-wo, Bh. sp. ab-lak, Champhung chag-hak, Rakhoing tchar-in, Mishumtsak-la, Singphu takha, Garo dakha, Bodo doukha, tauka.

13. *Day khwa'*, Bh. khyi. The slender form is the most common in the south. The u or w is preserved in the Burman khwe; Singph. kwí. The 'auc. gwaí resembles the Thochu form.

15. *Earth.* zi-p, Bh. sa, G. se'; Jap. zi, tsi, Ch. ti &c, Sam. tochia, ja, Turk sir.

20. *Fire.* me', Bh. ma, me.

25. *Hair.* grong, Bh. kra.

26. *Hog.* pi, Bh. phag, Chepang piak.

27. *Horn.* rak, Bh. ra, Changlo wa-rong, Uraon ma-rag, Ultr. rang &c.

31. *House.* ki', Ph. khyim, Sunw. khi, Kar. hi.

34. *Light.* uik, Bh. hwe.

42. *Name.* r-ma', Bh. ming, Naga-Manip. ming, mang, man.

43. *Night.* a-sha, Bh. m-tshan-mo.

47. *Road.* g-ri', Gyar. t-ri, Bh. lam, M. ra'.

48. *Salt.* che', G. chhe, M. che', Bh. tsha, chha, Horp. chha', Takpa tsa

49. *Skin.* ra-pi, Bh. pag-pa. (The ra may be the Horpa g-la, M. g-ra'), Singpho, Karen phi, Murmi di-bhi, Mozome Angami bi-khar, Bodo bi-gur, Garo bi-gil, Yuma moe-pik, Ch. phi.

51. *Snake.* bri-gi, H., G. also slender Bh. s-brul.

56. *Tooth.* swe', G. ti-swe, Bh. so. Burm., Murmi swa, Ch. ch'hui khi, Ugr. sho-pan.

57. *Tree.* gwo-zosi, Gr. shi, M. sa-poh, Bh. l-jon-shing, shin-dong, Ch. shi.

59. *Water.* chah. Bh. chhu.

b. *Chinese.*

18. *Eye.* kan, Ch. gan, Drav. kan.

22. *Flower.* lam-pa', Ch. la, hua, Kar. kha.

35. *Man.* na', Auam ngoe, Ch. lang, male, ang, nan, husband (See 10, 13, 15, 44, 55')

c. *Non-Bhotian.*

4. *Bird.* mar-iro, Drav. far-va, Angami Naga para, Samoiede mari-nane, Osetic mar-g, Pashtu mir-ge, Hind. mur-gn.

6. *Boat.* phyá, ? p-la Tibeto-Ultr. Car. Nicolai la ap.

10. *Cow.* gwa', Pashtu ghwa, Lau ngua, Mou nua, Lhop. ngo, Chin. ngui, go &c.

12. *Day*. styak-lo, Lepcha sak-ni, (*sun*, *sa-chak*, Limbu, *sky*, *tam-sak-pa*.)
14. *Ear*. nukh, Karen naku, N. Tangh nakor. Mishmi nakru, Limbu neko, Ch. Tibeto-Ult. na. [Fin, *face*, nak, nyuko]
16. *Egg*. kiwost (? ki-wost "egg-of-bird", *bird* Singh. wu, Naga vo, *egg* Newar khyen, Ugrian ai. Siam khei.
19. *Father* ai Ugrian ai.
21. *Fish*. izha', Yenisei isya, isse, Aino zis-i, Ugr zen, Mong sa-ga-sun; Nias, Paser isa', Philip isda, sida, sira.
22. *Flow r.* lam-pa', Ch. ta, hua, Kar. pha. Garo, Yuma par &c.
23. *Foot*, juko, Turk ajak, Garo *foot* jak, Kasia *ka-jat*, Simang chat.
24. *Goat*. tsah, M. tsah (see Horp.)
- 25a. *Hair*. ho-m-pa. Ugr. yop, Samoiede hopt, Turk. mui, Ultr. som, Newar song, Lepcha achom.
- 25b. *Hair*. kachu, Sok. kechi-ge, Koriak ketschu-gui, Sanskrit kasha; Naga kocho, Kar. khosu.
26. *Hand*. jipa', Magar hut piak, Turkish *finger* shar-bag, Manip. D. pang. pan. ban.
27. *Head*. kapat; Comp *hair* Sam. hopt, Ugr. upat, opta &c, *head* Indo-Eur. Kopf, hofid, caput, kapala &c.
30. *Horse*. ro', G. M. bo-ro', H. rhi (Ugr. lo, see Horpa.)
32. *Iron*. soimo, Garo shur, Hod shor, chur, Dhim chir; Korea suy, Tangus solo, zhiia &c., Sam. soumaya, suaheli chumar (see Horpa.)
33. *Leaf*. thrompi, ? Tib. loma, Ugr. lop, lopla &c.
36. *Monkey*, wui-si, Sokpa me-chu, Singpho we (si is *man* in Horpa v-zih, and ti is *monkey* in Gyar.) Comp. Naga si-mai, mai-nak, Abor, si-beh &c.
37. *Moon*. chha', Sokpa sara, Yenisei chaip, Manip. kachang, Milch ga-tchang, Garo ja ("star" Chin. ch'he, Karen sha &c.)
38. *Mother*. ou, Osm. Turk. aua, Ugr. awai, Sam. eo, Manip. D. noa, onu &c.
39. *Mountain*. epa', (? s-pya), Sokp. tava, Turk. tapa, tuba, uba, oba, tope. Vanij. kaphung, hom.
40. *Mouth*. dzukh, Yenisei b-yuk-kon, Sam. bek, Cauc. haku, Kamsch. shak-sha, tsch-na, Koriak shek-shen, Ugr. shus, &c, Fin su, sun &c, Chin. sui &c.
41. *Mosquito*, beup. (The labial root, single or reduplicated, is *mosquito fly*, *bee* &c. in many languages.)
44. *Oil*, ching-yu, Ch. yu.
45. *Plantain*, sarmi.
46. *River*. cha-bra', H. hra, Kiranti. Sam. tscha-ga, ja-cha, cha-wa; Tung. amar; bera &c; Sambawa brang.
50. *Sky*. mahto, M. ma', G. tu-mon, teu-menn.
52. *Star*, ghada, Mishmi kadang (? Bhot. p. kar.)
53. *Stone*, ghol-opi; Sokpa chhilo, Takpa gor. Many wobi.
54. *Sun*. mun; *Sky* G. mon, Gurung mun, Singpho &c. mu, Miri do-mur; Fin pei-wa, pew. sad fi.
55. *Tiger*, kho, Ch. hu, Gyami kbu, G. kong, Ultr. kya, &c.
58. *Village*, wekha, G. wokhyu.
60. *Yam*, jyah.

## COMPARATIVE VOCABULARY OF GYARUNG.

a. *Bhotian.*

2. *Ant*, Bhot. *grogma*, Gyar. *korok* ; Takpa *rok-po*.
4. *Bird*, B. *byu*, G. *pye-pye*, Takpa *pya*.
6. *Boat*, B. *gru*, G. *bru*.
7. *Bone*, B. *ruspa*, G. *sya-rhu*, (Manip. *sa-ru*).
11. *Crow*, B. *ablak*, G. *tabrok*.
12. *Day*, B. *nyinmo*, *nyimo*, G. *nye*, *pish-ne* [pish Chin]
13. *Dog*, B. *khyi*, G. *khi* [Ch. *khiau*].
14. *Ear*, *rna*, *na*, G. *tirne* (Angami Nag. *anye*) [Ch. *ngi*, *li*].
15. *Earth*, *sa*, Gr. *se'*.
17. *Elephant*, B. *zlang-chen*, G. *lang-chhen* [Ch. *chhiang*].
18. *Eye*, B. *mig*, *mik*, [Chinese *mok*], G. *tai-myek*, *tam-myek* [the G. form is also Burm.]
19. *Father*, B. *pha*, *pala*, G. *tape* Burm. *phae* [Ch. *pe*, *be*].
20. *Fire*, B. *ma*, *me*, G. *timi* [Chin. *we*, Aino *abe*, Fin. *bi*, *com*].
21. *Fish*, B. *nya*, *nga*, G. *chu-nyo*.
26. *Hand*, B. *lagpa*, G. *tayak*, Naga *dak*, *yak*.
27. *Head*, *mgo*, *go*, G. *tako*.
29. *Horn*, B. *ra*, G. *taru*.
31. *House*, B. *khyim*, G. *chhem*.
35. *Man*, B. *mi*, G. *tirmi* [Fin. *mis*, Cauc. *mi*, *me*, *ma*, Galla *mi*].
36. *Monkey*, B. *sprebu*, G. *she-pri*.
37. *Moon*, B. *zlava*, *dawa*, G. *tsile*, *chileh*, M. *lhev*.
38. *Mother*, B. *ama*, G. *tomo* [Ugro-Kuril. &c].
40. *Mouth*, B. *kha*, G. *tikhe* [Ch. *khau*, Yenis. *ko*, Semit. *kho* &c].
42. *Name*, *ming*, G. *tirming*.
47. *Road*, B. *lam*, *lani*, G. *tri*, Thochu *grih*, (Karen *kle*, Khari Naga *ndi*).
48. *Salt*, B. *tsha*, *chha*, G. *chhe*. [Sam. *si*, *sak*, Ugr. *sow*, *sal*].
51. *Snake*, B. *sbrul*, *deu*, (M. *bru*, Takpa *mrui*), G. *khabri* H. *phri*, T. *brigi*.
53. *Stone*, B. *rdo*, *do*, G. *rugu*, (Ultraiind. *lung*, *long* &c).
54. *Sun*, B. *nyima*, G. *kini*.
56. *Tooth*, B. *so*, G. *tiswe* (Burm).
57. *Tree*, B. *ljon-shing*, G. *shi*, Chinese *shi*, *chang* &c. Kamch.
59. *Water*, B. *chhu*, G. *tichi*, Takpa *shhi*, [Chin. *chui*].
60. *Yam*, B. *thoma*, G. *seten*.

b. *Chinese.*

3, 5, 10, 13, 15, 17, 18, 20, 26, 47, 52, 55.

c. *Non-Bhotian.*

1. *Air*, *tali* ; Burman gr. *tali*, *kali*, *kli*, *le*, Turk *tyel*, Ugr. *il*, *lil*, *ilma* &c. ["Wind" Turk. *il*, *dil*, *yil*, *sel*, Ugr. *tal*, *tul*, *fil*, *tuuli* &c.]
3. *Arrow*, *hipi* ; Garo *phi*.
5. *Blood*, *tashi*, Gyami *syé*, Nag. New. *si* ; Chin. *chiue*. [Tib *thak*].
9. *Cat*, *tarhu* (? a misprint).
10. *Cow*, *nye-nye'*, Gyami *neu*, *nyeu*, Ch. *ngui*, [Turk. *ona*, *ina*].
16. *Egg*, *kitan*, Gyami *chi-tun*, (hin. *tan*, Anam, N-Ultr. *ting*).
22. *Flower*, *tau-den* ; Kas. *sin-tin*.
23. *Foot*, *tami*, Takpa *temi*, Changlo *bi*, Naga *uphi*, Manip. *chapi*,

phai, wang, Milch. bung, Nipal Dial. pali, bele &c., Asones, val, wai &c., Malag. fe, pe, Indo-Eur. pad, pes, foot &c., Ugrian pilga, Sam. tobol, tobo.

24. *Goat*, kaso (see Manyak).
25. *Hair*, tarni. Khyeng inang, Ason. oli, uiri &c.
26. *Hog*, ki, Aber ik, Naga ak, Gyami tiko, Ch. ti, chi.
33. *Leaf*, tai mek.
39. *Mountain*, tavet. Mongal dybe, Turk. taw &c (see Manyak).
43. *Night*, todi, Angami Naga ti zi, asang dzi, Turk. tin. Mong. si, suni &c.
46. *River*, tichi, Takpa chhi (see *Water*).
49. *Skin*, tidri, Dhimal dole, Turkish diri, dari, tire &c., Ugr. tonl &c.
50. *Sky*, tumos, teu meun, T. mah-to, M. mah, Burm. group mo, mu, mi &c.
52. *Star*, tsini, Naga le tsi, pe-ti &c. Chinese sim, Yuma gr. kasi, a-shi &c. Turkish syltis, ildis &c. Ugr sili &c.
55. *Tiger*, kong, T. khoh, Gyami khu, Nag. takhu, khu, Chin. hu, ho.
58. *Village*, wo khyu, tu khyu.

#### COMPARATIVE VOCABULARY OF MANYAK.

##### a. Bhotian.

The Manyak forms, it will be remarked, generally resemble the more slender of the Ultraindian and not the Bhotian.

2. *Ant*, B. groma [G. korok] M. barah, (Abor marang, Magar mahar, Aka taruk, Manip. group langza, chaling, miling &c. Khumi palong, Silong kedam).

3. *Arrow*, B. mlah, da, M. ma (Burm., Magar mya, from *mra* Burm., Kirahti me).

4. *Bird*, B. chya, M. ha (Nag. ou-ha, au-ha &c., Mrung ho, hau).

5. *Blood*, B. thok, M. shah (Thochu sah, Horpa sye, seh, Gyami sye, Gyarung tashi).

6. *Boat*, gru, M. gu (Gyarung bru, Ultr. rua, rung &c.)

7. *Bone*, B. s. ruko, M. rukhu.

10. *Cow*, B. ba; M. wo-mi (Anam bo, Siam woa. In Manipuri, Yuma &c. woi is used generally with names of quadrupeds, as mi is with those of the cow and buffalo in Manyak. The Anam and Lau names of the cow appear to have been derived from the Tibeto-Ugrian ba, mus—whence bos—through the Manyak form).

14. *Ear*, B. rnawa, na, M. napi, (Naga, Burm. &c.)

19. *Father*, B. pha, M. apa com.

20. *Fire*, B. na, me, M. same' [Nag. mi &c.]

22. *Flower*, B. metog, mentok, M., Takpa mento.

26. *Hand*, B. lag-pa, langgo, M. lap-cheh, Takpa la.

28. *Hog*, B. phag, phak, Horpa vah, M. wah, (Angami Nag. tse-vo).

29. *Horn*, B. ra, rajo, Horpa krumba, M. rubu, Takpa ruba.

31. *House*, B. nang, M. nyeh, (Deor. Ch. nya, Bodo noo, Naga nok.)

32. *Iron*, B. chhya, M. shi.

33. *Leaf*, B. loma, Horpa balah, Dhimal lhava, Takpa blap, M. nipchek, Naga nyap, ponye.

34. *Light*, B. hod, lwe, eu; Thochu uik, M. wuh, Takpa wot.  
 37. *Moon*, B. klava, M. lneh (Naga le).  
 38. *Mother*, B. M. ama. (com.)  
 42. *Name*, B. M ming.  
 47. *Road*, B. lam, lant, M. rah.  
 48. *Salt*, B. tsha, chha, Thochu, Gyar. Many. cheh,  
 51. *Snake*, B. sbrul, M. bru.  
 52. *Star*, B. skarma, karma, M. krah, Horpa sgre.  
 54. *Sun*, B. M. nyi-ma.

## b. Chinese.

4, 10, 20, 21, 47, 55.

## c. Non-Bhotian.

1. *Air*, merdah, Naga ra, rang &c. Dophla dori, Burm. li, le, la &c. Drav. la. The broad form of M. is Naga, Drav. and Aino. The slender form of Gyarung and the Burmese group is Turkish, Yukahiri &c. The Tibetan form of the common root is distinct, *rlungma*, *lhakpa*, the latter being connected with the Naga-Manyak form.

8. *Buffaloe*, ding-mi, wo-mi, "cow"; Kar pi "cow", Dhim. pia, Newar &c. me "buffaloe". Ding is peculiar, unless it be a misprint for bing.

9. *Cat*, macheu; Dophla ache, Naga mochi, Bodo mouji, Mong. michoi, Korea koi, Ugr. mishok &c.

11. *Crow*, kali; Horpa kal, Sokpa khere; Champh. khala, Mishmitsa-kla, Garo koura (? Asam, Beng.) The term is Scythic, Indo-Eur., Somitico-Afr., and Asonesian.

12. *Day*, nashchah; Bodo shyan, Garo, Naga, Yuma san, Tiberk. zhangnia ["Sun" in other dialects]

13. *Dog*, kshah, Horpa katah, Nago tasu, az &c., Nipal dialects kushu, kochu &c. [Yenisei. il-tscha, Kamch ko-sha, Root N. E. Asian, Scythic, Cauc., Indo-Eur., Semitico-Afr., Ason.]

15. *Earth*, mali, mli; Naga ali, Manip. malai &c., Kyo ni, Burm. mre, Mish tari (Turk. yir, er, Korea chli.)

19. *Egg*, racha (? cha "bird", Tib. chya), Korea ar, al.

18. *Eye*, mni, Mru. min (? from Tib. mik, like the Dhim mi, or from the Mong. nidu by contraction, Kamch nanin, Jap. mey, mamige = Tib., Korea nun, Mong. nudun, nidu &c.

21. *Fish*, yu, Gyami yue, Chin. hu.

23. *Foot*, lip-cheh (see "hand"), Garo. chap-lap.

24. *Goat*, tsah, T. tsah, H. chhe, kuso, Abor sa-ben, Dhim. eecha, Anam, Kamboj. sha-bain, Kashm. shawul, Burm. sheik; si.

25. *Hair*, mui, Dhim. mui tu, Horpa spu, Takpa lu, Turkish mui.

27. *Head*, wuli, Dhim. puring, Khari Naga telin, Manip. lu, Ahom ru, Yukahiri ulu, monoli &c. Ugr. yor, yir &c.

30. *Horse*, boroh, broh, G. boroh, T. roh, H. rhi, ryi, Mong. mori &c. Tung. moron &c., Korea mol.

35. *Man*, chhoh, Changlo songo, Naga saun-yak, mesung; Ugr. chu, choi, Aino chogu.

36. *Monkey*, miyahah, ? Dhim nhoya.

39. *Mountain*, mbi, Khari Naga apih (T. spyä', Sokpa tava, G. taver, Mong. dybe, Turk. taw, tau, uba, Yuk. h. pea, Sam. bija.

40. *Mouth*, yeba, Sokpa ama, Mong. ama, aman, Tung. amga, Ugr. un, om, in, wom &c. Naga amu, tabang, tebaun.

41. *Mosquito*, bimo, T beup, ? Angami Nag. viru.
43. *Night*, kwakah, Kir. khakwe, Gyami khe-lo.
44. *Oil*, ichira, itira, Dbim. chuiti.
46. *River*, dyah, Bodo doi (see *Water*).
49. *Skin*, grab, Horpa gla, Thochu rapi, Sokpa saru, Mozomi Ang. Nag. bikhar, Bodo bigur.
50. *Sky*, mah, Thochu mah-to, Gyar tu-mon, Turk. awa.
53. *Stone*, wobi, T. ghol-opi (Takpa gorr ; gol &c. is Tatar, Korea, Kamch , Yakahiri and Ugrian in different forms; pi, pe &c. is Samoiede, and Aino).
55. *Tiger*, lephe.
56. *Tooth*, phwih (? Gyar. tiswe, Thochu sweh), Burm. thwa, Takpa woh, Kami aha, [Tungus. wei-che, Jap. fa, Ugr. pui, pu &c.]
57. *Tree*, sapoh, Nag. peb, pan, Burm. apen &c, [Turk. iwos, Tung. mo, Kamch uo, Sam. po, pu, pe, Ugr. pu, eu, fa &c.]
58. *Village*, hu, Takpa yu.
59. *Water*, dyah, [? G. ti-chi, Takpa shhi, B. chhu Chin. sui, cheu &c., Bodo doi, Yuma tui, Nag. tu, ti, si &c., Sam. tui, Tartar su, zu, dsu, she &c.]
60. *Yam*, zgwah.





## SEC. 6.

THE GLOSSARIAL CONNECTION BETWEEN ULTRAINDO-  
GANGETIC AND TIBETAN.1. *General remarks on the Bhotian affinities of the  
Gangetic and Ultraindian languages.*

The Ultraindo-Gangetic vocabularies present two classes of Bhotian affinities, each of which has two branches.

The 1st class consists of words, or forms of words, immediately derived from Bhotian, and at least two branches may be distinguished, viz. vocables derived from the modern Bhotian, and vocables derived from the ancient or written Bhotian. If, as is probable, the strong phonology still prevailed throughout the Bhotian province at the time of the first great irruptions into India, it is not necessary to assign an older date to the vocables of the second branch than the earlier centuries of the Christian era. Indeed they may have continued to be imported to a much more recent period, and may possibly be still received into some of the Himalayan dialects if the old phonology be retained by any of the Kam pas who migrate to this side of the snows at the present day. Whether Western Tibet directly sent vocables to the southward before the age of the Himalayan conquests is a question that cannot yet be answered.

The 2d and most important class of Bhotian affinities are those which exist in the Ultraindo-Gangetic vocabularies not because they were received from Bhotian, but because the Northern linguistic stock of the tribes which use them was closely allied to the Bhotian, both having for basis a common formation. They may be now considered as Sisan.

These archaic Tibeto Ultraindian or Sisan vocables possess two forms, one characteristic of that modification of the formation which it had when it first came in contact with the prior Mon-Anam formation of Ultraindia, and the other peculiar to the Burman branch, which appears to have spread to the southward and westward at a more recent period, after having long remained secluded and comparatively pure in the North Eastern part of Ultraindia or the adjacent Sisan mountains. The older diffused forms are generally full and dissyllabic, and the first syllable is frequently a definitive prefix. The later forms are remarkably curt, and in this respect contrast not only with the older, but with the Bhotian, the latter having prefixed consonants and frequently adding a postfix to monosyllabic roots. I will proceed to consider each of these varieties of the Bhotian affinities more particularly.

The absence in Indian history of any notice of the modern irruption of the Bhotians into the Himalayas and the plain of the Ganges, of which positive but faint historical evidence exists in Chinese books, exhibits its partial and untrustworthy character in a strong light. It has preserved no distinct record of an event of so much importance that it gave to the Himalayas a new people and new dialects, subverted the ancient dynasties of the plain,—Arian, Dravido Ultraindian or Arianised,—and led to the establishment of a Tibetan dominion, which lasted so many centuries in Bengal as to affect not only the ruder languages near the mountains, but, in a very slight degree, Bengali itself. If a revolution of this kind, that began some centuries later than the commencement of our own and of the prevalent In-

dian eras, has been suppressed, how much caution is needed in making any historical use of the Hindu chronicles. The degree in which the proper Bhotian glossarial forms of the Tibeto Ultraindian formation have been diffused to the southward of the Himalayas sufficiently appears from other Sections. The ancient or written forms are frequently found in Lhopa and Serpa and sometimes in the less Bhotised languages of the Himalayas. The modern forms of Lhassa and Digarchi have been partially spread by Bhotians among the Himalayan languages, but very few examples are found in the Middle and South Gangetic or in the Ultraindian languages. The ancient Bhotian forms have been sparingly diffused from Bhutan among the middle Gangetic and the adjacent North Ultraindian languages. The prevalent Ultraindian forms of the Tibeto Ultraindian roots sometimes agree with the Bhotian but more frequently differ from them, and most of those which agree with it are too widely diffused, and are, in many cases, of too essential a character and too intimately blended with the Ultraindian glossarial systems, to have been recent derivations from Tibet or Bhutan. Many have now been found in Sifan vocabularies also, and it is clear that such forms were carried southward by the oldest migrations from Tibet, which must have long preceded the Bhotian irruptions of our era. Every great glossarial formation exhibits a proportion of roots which preserve an identity in form in separate provinces and after an extent of diffusion which it must have taken many thousands of years to effect. The Asonesian languages, in their archaic affinities with African, N. Asiatic, N. E. Asiatic and other remote languages, afford striking illustrations of this.

The glossaries of the Ultraindian and the connected Indian languages are exceedingly mixed, a necessary result of the single intrusive Ultraindian race having partially blended at least three distinct linguistic formations, the archaic Dravido-Australian with its modern N. E. Dravirian branch, and the imported Mon-Anam, and Tibeto-Burman. Every attempt at an exact separation of the roots belonging to these several formations must prove to a certain extent a failure, because all had archaic affinities. Thus the Dravirian had Tibetan and Chinese affinities, and the Mon-Anam languages must have had archaic connections with the adjacent languages of the Tibetan family before either of these branches of the Chino-Tibetan or Himalaic stem was carried over the mountains into Ultraindia and India. But it is possible to make a rough approximation to such a separation, owing to the circumstance of the Tibetan vocabularies still extant in Tibet and the Dravirian vocabularies of Southern India having preserved certain portions of the ancient glossaries of two of the formations comparatively free from Ultraindian intermixture. In the case of Tibet it is not probable that its archaic vocabularies have been affected by the non-Sanskrit languages on this side of the Himalayas, and although Southern India is much more exposed, the general effect of all the ethnic evidence is against the Ultraindian tribes and languages having influenced the peninsula beyond the Vindyas to any notable extent. Having already partially traced the Dravirian vocables in Ultraindia, the first step towards ascertaining the probable extent and diffusion of the Mon-Anam glossarial remnants will be to separate from the Gangeto-Ultraindian vocabularies those words which clearly or probably belong to the Tibeto-Burman formation.

The Bhotian affinities of the various vocabularies of the Burman fami-

ly and of Ultraindia generally, are, with a very few exceptions, archaic. Taken with the large amount of disagreement that remains amongst these vocabularies, after excluding the Ultraindian words of probable Dravirian, Chinese, and Asonesian origin, they prove that the Tibeto-Ultraindian formation embraced several languages possessed of vocabularies that differed considerably. This indeed might have been anticipated. At the remote era when Tibeto-Chinese or Scythoid tribes began to descend into Ultraindia, it is not at all probable that any civilisation prevailed immediately to the north of the Himalayas sufficiently advanced to have established one nation and one language over a region so cold, arid and mountainous. The western progress of the Chinese may in time bring about such an event, but it may be considered as certain that it has never hitherto existed. At present there are several dialects in Tibet itself, and, according to Chinese authorities, several also in the adjacent provinces now embraced in western China. Where there are now five distinct vocabularies there may have been more than double that number when the tribes of this region first began their movement into Ultraindia. In estimating the amount of the archaic glossarial affinity between the Ultraindian and the Tibetan languages, we must allow something for the words that may have been conveyed by Bhotians into Ultraindia since they became so civilised as to carry on a traffic with the upper tribes of the Irawadi, such as the Mishmi.

*2. The General Connection between the Gangeto-Ultraindian and the Sifan Languages as Dialects of the same variety of Tibetan.*

With our present imperfect information respecting the East Tibetan and Gangeto-Ultraindian languages, a detailed grammatical comparison is impossible. In Secs. 1, 2, 3, 4, 5 and 6 of chap. IV. I have shown that the North Ultraindian and the Gangetic languages are intimately connected in structure, so far as their structure is known, as well as in pronouns, numerals and other particles; and that they all belong to the Tibeto Burman family, although a variable but slight archaic Indian or Dravirian ingredient is found in most of them, and some have been influenced by the Mon-Anam formation. The presence of a large Bhotian element was indicated, but many common traits were found to connect the Ultraindian with the Gangetic languages which could not be referred to Bhotian, and which pointed at a derivation of the primary Ultraindo-Gangetic variety of Tibetan not from Bhotian but from some archaic eastern branch of the Tibetan formation.

Referring to chap. IV. for an examination of the structure of the Gangeto Ultraindian dialects, it is only necessary to add here that the Sifan languages that have since been brought to light by Mr. Hodgson prove to be representatives of that Eastern branch of Tibetan from which the Ultraindo-Gangetic dialects were mainly derived. At present very little is known of their grammars, and it would be premature to conclude that any of these Sifan languages was the immediate parent of all the allied Gangeto-Ultraindian. It is clear that the latter are primarily and principally dialects of the Sifan and not of the Bhotian branch of Tibetan, but there must have been a great lapse of time since the Sifan tribes first began to cross the mountains; dialects may have existed then in Eastern Tibet which are lost now; and the surviving dialects have probably been modified by internal change, by movements amongst the ne-

tive hordes and by the influence of the surrounding Bhotians, Tartars and Chinese. For the present we must be satisfied with the conclusion that the Sifan and the Ultraindo-Gangetic dialects are all sub-varieties of one East Tibetan dialect, but that many of the Ultraindo-Gangetic have been more or less modified by the influence of Bhotian since they first spread into the basins of the Irawadi, the Brahmaputra, the Ganges and the upper Sutlej. Some light will be thrown on the successive phases and migrations of the southern dialects by our glossarial comparisons.

The little that is known of the structure of the Sifan dialects has been given in the preceding Sections. All the traits that distinguish them from Bhotian are found in the Ultraindo-Gangetic languages. The principal is the large use of vocalised prefixes. The identity in these prefixes, in the non-Bhotian pronouns and in the particles generally, belongs to the glossarial comparison. The somewhat more Scythic character of the phonology also connects the Sifan, or at least the Gyarung, with the more harmonic of the southern languages, as the Bodo and Dhimal. The postfixal agglutination of the pronouns is a Scythic trait, which must now be considered as of Sifan, and not of Dravirian, origin, in the Dhimal and Naga dialects in which it has been found. The existence of a dual or inclusive plural of the 1st pron. in Manyak and Thochu connects the Sifan idiom with the Scythic on the one side and the Dravido-Australian on the other. Mr. Hodgson has found it in the Himalayan dialects of Kuswar, Hayu and Kiranti (Journ. As. Soc. Beng. 1853 p. 62), so that it may prove to have been carried by the Sifan tribes to the southward. The Ho, Santhal and Uraon forms to which Mr. Hodgson also refers, are Dravirian, and not Manyak, Thochu or Scythic.

In referring to chap. IV. it will be born in mind that the Sifan vocabularies have now greatly increased the ascertained Tibetan element in Gangeto-Ultraindian, and, as a consequence, diminished what I had considered the Dravirian. The phonology and pronouns may now be held as mainly Sifan, although some Dravirian ingredients are still recognizable (see chap. V. sec. 11).

The general ethnological inferences may be briefly adverted to in this place.

The first conclusion to be drawn from the ascertained facts is that during an era subsequent to that in which the Mon-Anam formation became predominant in Ultraindia, Tibetans crossed the Himalayas in large numbers and acquired an ethnic position and influence in Northern Ultraindia and the Gangetic basin. The Tibetan language in its integrity was transported to this side of the snows, and, through the dispersion of the Tibetan tribes, gave rise to new dialects, and deeply and variously affected the prior Gangeto-Ultraindian languages. In many of the existing cis-Himalayan dialects we find Tibetan pronouns, particles and ideologic usages, while the miscellaneous Tibetan vocables form an ingredient, generally very considerable, in the glossaries of all the Ultraindo-Gangetic tongues. Although no single mixed vocabulary appears to be more than one half Tibetan, it is probable that the greater part of the Tibetan glossary was at one time current in the southern dialects, or was intermixed amongst the different native languages which came under their influence.

An influence so great, and embracing so many languages from the

ling, ke-ling, kering, ku-le.

(h.) The *Sechusana monga*—he-la,—in 8 and 9 he-ra (representing 10)—is a variety of the Semitic 10 ash-ar, as-ra &c. In Semitic it is still pronominal and as a unit occurs in 3. The form is cognate with ke-ling &c., the aspirate, sibilant and guttural being variations of the same definitive and unit. Some of the Malayu—Polynesian terms appear to be cognate (se-ra, sa-ra &c.)

(h.) Double sibilant or aspirate forms are not now found in 1. In the *Gonga hu-su pona*, *ho-su puna*, the first term *hu-su*, *ho-su* is 1. The Egyptian sha-sh-f 7 (6, 1) is another instance of its use as the unit. ||

In most of the higher numbers the guttural unit recurs. It is common as 5. In Nufi it is prefixed even to the numbers below 5, (o-gu-bar 2, o-gu-tar 3 &c.). The other varieties, dental, sibilant, nasal and liquid also recur, and in some cases with postfixes not now preserved in terms for 1. All the varieties occur with the labial postfix in the unit series. Thus the form sa-ba, sa-ma, su-mon, sho-m, shi-min, si-vi, se-min &c. is found in 3, 5, 6, (5, 1), 7 (in the 6, 1 terms), 8 (in quinary terms 5 3, in which 3 is the unit), and 9. The dental and guttural varieties of the same term are also common, particularly in 5 and 10. These compounds favour the inference that the labial had the same power whether used by itself, or as a prefix or postfix, and that the variation in the relative position of the two elements in archaic terms is a fact of the same kind as the occurrence of the definitive both as a postfix and prefix in nouns.

The reduplicated form of the pure sibilant and dental is found in higher numbers. It is common in the ternary series 3, 6, 9, 30, 60 &c. and occurs as the unit in 5. Egyptian has it in 7 (6, 1). Possibly the reduplication distinguished 3 from 1, but as the terms for 1 were either double or bi-consonantal, and as the double 3 varies to forms similar to 1 (e. g. ti-lu 3 Malagasy, ti-lu 1 Bornui; ke-s 3 *Gonga*, ke-t 1 *Karaba*; tha-k 3 *Gara*, ta-k 1 *Galla*;) it is probable that such forms as tha-th, su-s &c. were archaic forms of 1. Although not found in 2 they occur in 4. If the Himyaritic ta-nt, ta-t, does not contain a secondary postfix in its-nt, -t, it is identical with the tha-th &c. of 3. Similar forms of

nection in the crowd of varieties which our African collections now present, The Semitic affects *a* and *e*, *wa hi*, *wa li a kh*, *e kh* &c.), and the Berber, Nubian, Sudanian and Western forms in *wa—*, *ba—*, *ma—* are probably connected with it, e. g. *wa n* Berb., *wa r* Nubian, *ba l* Bornui, *pa-le* Mandara, *ba ne*, *va-ne* Gadsaga, *ba la*, *g ba ni*, *g-ma ni* Nufe Gr., *fa no d* Felup. The Zimbiana affects *o* and most of the *o* and *u* forms, so abundant in Western Africa, appear to be more immediately connected with it. In some places the line of meeting of the two forms may be observed. Thus in the central or Tsadian province, Karekare like Mandara has *a*, but Pika, immediately to the south and probably within the influence of the Zimbiana languages of the Chadda basin has *o*, although the numeral roots are the same. Karekare *wa-di*, Pika *mo di*, so 2 *be lu*, *bo lu*; in the Arabic of Adirar *wa—* is replaced by *we—* (comp. the Hebrew *e—*) and is used in 2 also, *we hi-d*, *we-he-d* 1, *we s ne* 2.

|| The *Gara* and *Mahrah ta-ut*, *Curia Muria ta-t*, are not reduplicated forms if the final *-ut*, *-t*, be servile. Mr. Koelle's *dei-dai* *Udom* and *Mbofon*, *dse-t* *Eafen*, and perhaps *dso-s* *Kabenda*, appear to be proper reduplications.

the unit occur in Caucasian (1 &c.), Euskarian (7), Indo-European (6), and N. and E. Asian.

B. (a). *a-wa-l masc a-wa-l-i fem.* Arabic, "first". It is used only as an ordinal, but it appears to have been an archaic Semitic cardinal, not only from its wide prevalence and great importance in the derivative numeral systems of Africa, but from its preservation in a contracted form in the Semitic 4. In Africa the liquids l, r, n, d, are current as l in several forms, and as they pass into those in s, h, t, k, it is probable that in archaic Semitic also wa-l, wa-li &c. was only a variation of wa-si, wa-hi &c. War-um, wa-r-ka, be-r-a, u-er-a Nub., ba-l Bornui, wa-r-ni Shabbe, (also prefixally in 2, 3, 4 hoos-war-) wo-r-ni Nufi, mo-r-i Runo, bu-l Bulun, wa-n, ua-n Berber (ian in 11, 21 &c.), wa ni Fetu, pi-li Kissi, pi-n Timmani, ba-ne Serakoli. In E. Nilotic this term is preserved as an element in the Agan 6 wal te, wol-ta: (So in Nigeria woro 6, Julunkun, Soko).

#### *Foreign affinities.*

A, in all its varieties, has N. and E. Asian representatives (Scythic &c.)

In the adjacent Caucasian province the sibilant form of the definitive, with different postfixes, is the most common unit, es-gu Georgian, za, zo, ho-s, zi-s, za-ba, se-w Lazian, tza Mingrelian, se Circassian, se-ka, se-ke, Awari.

(a. b.) is the simple definitive found in the dental, as in the sibilant and other forms, in the N. and E. Asian systems and in the Caucasian. The Semitic term resembles the Indo-European *ek-as* and the cognate Ugrian terms, some of which retain the initial labial (*ve-ike*, *va-ikse* &c.), while others have dropped it as in Indo-European and most of the Semitic forms.

(c.) in some of its forms is similar to those N. Asian terms in which the root or initial element is in n. Mongolian *ni-ke*, *ne-ka*, *ne-ge*, *Koriak ing-shin* &c.

(d.) These forms are only varieties of (b) and have the same Asiatic affinities. The Galla-Hausa *ta-k*, *to-ko*, *dai-ak*, and Darfur *d-ik* resemble the Ugrian *ot-yk*, *yt-yk* &c.

(e) The liquid l or r is not found as the unit in l itself in the N. and E. Asian systems, but it occurs in higher numbers, and it is distinctly preserved in Ugrian, Samoiede, and Mongolian terms for 10. The Vogulian *la-ga*, *la-wa*, *lo-u*, *lu*, Lap *lo-ke*, Samoiede *lu-ze-yu* *lu-ste-yu* are close representatives of the Agan—Bornui *la-gba*, *la-ka*, *la-ska*, *lo-wa*.

(f.) Similar varieties of the unit occur in the Scythic systems. Mongolian has *dor*, *der*, *dol*, *dal*, *tir* &c. in some of its higher terms. See 5.

The Asonesian terms are chiefly Malagasy, but some appear to have closer representatives in those African systems with which Malagasy is connected. The most prevalent terms are *isa*, *ise*, *ese*, *asa*, *icha*, *ita*, *ida* &c.; *tahi*, *tasi*, *taba*, *tai*, *ta*; *tika*, *tik*, *titu*, *tot* &c.; *satu*, *hatu*, *siti*, *sada*, *sara* &c. &c.

B. The Semitico-African forms resemble the Scythic labial unit in the Turkish form *ber*, *bir*, *pra*, in which the sibilant postfix of the more common form (*bish*, *vis*, *wis* &c.) becomes *r*. The labial is not now the most prevalent unit in the numeral systems of N. and E. Asia, but it is retained in l by some languages—Ugrian, Tungusian, Turkish and

Japanese,—and it occurs in others in 5, 10, 1000 &c. The postfix has all the variations that occur in Africa. Examples of *-r* and *-s* have been given in the above forms. The Tuugusian 1 and 10 has *min*, *men*, *mer*, *mon*, and the same definitive occurs as a numeral postfix in those forms and in others such as *man*, *ban* &c. resembling African units. The African terms which have *-t*, *-k* are similar to the Ugrian *va-ik*, *v ek*, *v it*, *b-et*, *b-at* &c.

The Dravido-Australian labial unit is cognate with the N. and E. Asiatic and with the Semitico-African, being identical in form with the latter.

The Zimbian terms, if the labial be radical, resemble the Scythic *bish*, *mis* &c., but they have still closer representatives in Indonesia (Papuan, E. Indonesian) *sa mo-si*, *na-isa*, *me isa*, *me-si*. In these forms the labial is undoubtedly prefixal.

*Observations on the Distribution of the terms.*

From the forms and combinations of the definitive and numeral elements common to Semitic with African languages, it is clear that in the latter they are not in general, to be considered as derivatives from the former in its present or historical condition. The cognate African languages are, like the Semitic, branches of an archaic formation which must at one time have been represented in S. W. Asia by dialects more akin to the African than to the historical Semitic. When the archaic Semitic or Semitico Libyan formation first spread to Africa it must have had several forms of the unit, and one of the most important appears to have been the labial. There is no clear evidence that it preceded the sibilant. It is more probable, from their distribution in Africa, that both were used by the Semitic dialects that were first transplanted into that region. The sibilant, dental and guttural was either from the first the more important term or it early became so. Probably the labial was the masculine and the other the feminine def. and unit. If the labial was a common prefix or initial element, both may have been imported from the first in combination.

*Two.*

A. *ith-na-ni*, *ath-in-an*, *is-in-in*, *s-n-in masc.*, *ath-in-ta-n fem.* Ar., *she-ne*, *she-ne-m*, *she-na-yim*, *masc.*, *she-ta-yim*, *tem* Heb., *s-roh* Mahrab, *te-r-en* *masc.*, *ta-r-t-t-en* *tem.* Chald. (*s-an-ra* or *sa-n-na* 20 Babylonian), *s-nau*, *s-en-te*, *s-nu-ti*, *s-nou-s* Eg. Copt., *the-na-t*, Berb., (*si-n* in 12, 20 &c.), *si-n* Shillah, *ti-ng* Bullum, *s-il-il* Kalabi, *ki-le-te*, *khe-li-te*, *qui-le-t*, *hu-l-et*, Abyss., *he-li-ta* Gaiat, *ki-lli* Arkiko. (See Semitic, p. 2.)

The liquid *na*, *in*, *ne*, *roh*, *le*, *li*, *il* of these forms appears to be the essential element.

The Ashanti *mi-e-nu*, Fanti *e-bi-e-n*, Afutu *e-nu-e*, Amina and Yoruba *e-nu*, are probably, with the Bornui *en-di*, *in-di*, of Semitico-Libyan derivation, with the initial *t*, *th*, *h*, *k*, elided. Comp. Egyptian *s-en-te*, *s-nu-ti*, Berber *th-en-at*, Shillah *s-in*. The anomalous Fulah *di-di* is obviously a variation of the Bornui *in-di*, (Eg. *s-en-te*)\*

\* Koelle's Voc. supplies the following African variations of Arabic, *te-ne-n* Soa, *sa-ni* Wadai, *we-s-ne*, *e-t-ne* Adirar, *te-ne-ni*, *se-ne-ni* Beran. The Kandian *di-si-n* (*di-an*!), Bode *se-li-n*, Ngodsin *si-li-n* are forms similar to the Shillah, Kalabi and Arkiko, and forming with them a group originating in one special and older diffusion of an Arabic form.

In the Kongo-Angola *kia-di*, *ia-li*, *ko-le*, *so-li*, *so-le*, *ya-ri* [comp. *va-li*, *mi-li*, *me-o-li*, B.] the liquid element is combined with different prefixes. They suggest a connection, probably remote, with the Semitico-Abyssinian forms, *kilete*, *khelife*, *quiet*, *hulet*, *Gafat helita*, *Arki-ko killi*. In these forms the initial consonant varies from the primary *s*, (Semitic, Egyptian) to *th*, *h* and *k*; and the second consonant from *n*, (Arabic, Egyptian, Berber) to *r* (*Gara*, *Mabrah*) and *l* (*Abyss. Kallahi*). The final *et*, *ta*, *ti*, *t* &c. is the common Semitico-Libyan def. postf. (*f-m.*) It will be remarked that none of the archaic African terms take the final *n* of the Semitic. If the Zimb. *li* (B) is the 2d element of the Semitico-African root, — of which there appears to be no doubt — its combination with a labial prefix, and the absence of the dental or liquid postfix, shows that it was not borrowed from the proper concreted Semitic system, but from Semitic in its pre-agglutinate era when the postfixes were free, — from another Semitic system, — or from a common archaic source. Other instances of a similar kind occur, in which the Semitic root is either bare, or has an African prefix or postfix. In another place reasons are offered for considering that the present Semitic term replaced a more archaic one in which the labial, and not the sibilant, definitive and unit was the initial element. Both forms may have prevailed at one time in different Semitic languages. At all events it is probable that the labial form was that of the Semitic system which first spread into Africa and from which both the Nilotico-Nigerian and the Zimb. labial terms have been derived.

In the Galla 7 (5, 2) the Semitic term occurs in a form similar to the Chaldee, but with the archaic labial postfix *to-r-ba*, *to-r-b*. The Nubian *ko-lo-du*, Bornui *tu-l-ur* resemble some of the other forms of 2 given above.

B. (a) The prevalent African term for 2 is the labial, with a liquid final (*l* or *r*). It is found in the Nilotic, Zimb. and Nigritian provinces, and as the Zimbo-Nigerian varieties throw light on the original I give the former first.

The following are examples of the more prevalent Zimb. forms. Suaheli *mbili*, *mbiri*, Kinika *mbiri*. Kikamba *ili*, Mazambik *pili*, *piri*. Makua *medi*, *pili*, Mudjana *gaviri*, *eviri*, Makonde *ividi*, Takwani *mi-li*, *vir*, Masena and Sotala *piri*, Nyambana *givire*, Zulu *mabini*, Sechuana *biri*, *piri*, Benguela *vali*, Angola *ki-adi*, *i-ali*, Kongo *kole*, *koli*, *sole*, (*ole*, *oli*, in 12 and 20) Embonna *meoli* (*odi* in 7, *mi-oli*, *oli* in 12 and 20), Kambinda *zoli*, Mundjola *biere*, Mpongwe *mbani†*.

The corresponding Mandingo forms are *fire*, *fila*, *fela*, *fering*, *pu-rung* &c.

In some of the other Nigerian languages a pure labial term is found, and its immediate affinities are Sudanian, — Hausa *biu* (other Sud. forms *bu*, *boyu*, *bue*). The combination of vowels is a Hausa trait,

† Additions from Koelle, — *si-vi-ri*, *dsi-vi-ri* Muntu, *pe-li* Matatan, *bi-wa-de*, *i-ya-de* Songo, *va-t*, *ya-li*, Lubalo, *ka-t*, *zo-le*, *yu-ol*, *bu-ol*, *bo-l*, *bie-le* Angola &c. The Musentandu *ko-le* when compared with *ko-sil* and *ko-tatu* 3, *ko-ya* 4 &c. shows that *le* is the root in 2 as *si* is in 1. The labial pret. is equally regular in Mutsaya *mu-mo* 1 (*mo-mo-s* Babuma), *bo-l* 2, *ba-tet* 3, *ba-na* 4, *ba-tan* 5. Kanyika has *tu-wi-do* (*tu-sa-tu* 3). The Angouba has *fe-le*, *pe-re*, *ve-re*, *fi-rin*. The Baga group has the cognate *t-rin*, *pe-ran*, *pa-ran* (Comp. *pi-n* 1, *pe-sas* 3, *pa-nere* 4.)



are Sifan, *ka-ti* Gyarung, *ta-bi* Manyak, (*ra* Horpa, *a-ri* Thochu) The prevalent Sifan and Ultraindian vowel, it will be remarked, is not found in Gyarung, which has the current Chinese and Bhotian *i*. With the Sifan-Naga forms are to be classed the Kami and Kumi *ka*, Khyang *ka-t* (of *nhat*, *pa-ha*!), Shindu *me-ra*, Bongju *ka-kar*, Kuki *ka-ka*, Nicobar *ka-hok*, Burman *ta*, *ta-ch*, *ta ik*, Karen *ta-ple*, Tungblu *ta*. The Karen and Burman retain the Manyak form unaltered. The guttural Yuma variation of this is found in Changlo khong, Dapla *a-khen*, Abor *a-ko* (doubtful, 6 has *a-keng ko*), Taying Mishmi *e-khing*. The original Chino-Tibetan final is preserved in the Naga *a-khet* unless it be a variety of the Gyarung *ka-ti* (*khe-t*). To this variety the Kiranti *ek-tai* is also referable, unless it be Arian. The Naga *ka-t* is, in like manner, the original of the Lepcha and Magar *ka-t*, Sunwar *ka*, which appears to be the prefix of *ka-t* and not a derivative from the Yuma radical *ka*.

The slender Burman forms *tit*, *te'*, may be native varieties of the broad Sifan forms, but it is more probable from the Gyarung *ti*, Takpa *thi*, that similar varieties of the Chinese *chit*, *it*, *che* &c. were at one time current in Sifan also. The Naga *cha*, is an a form retaining the Chinese consonant. The Garo and Deoria Chutia *sha* is a variation of *cha*. Naga has also the (*van*-the), corresponding with the Burman *te'* and Chinese *che'* or *chek*. The Bodo *che* (*man-che*, in which the pref *man* is the same as the Naga *van*), Dhimal *e* (*e-long*, in 10 *te-long*), is the same variety. It is also found in the Miri *a-te-ro*. The Limbu *thit* is referable to the Burman *tit*, and the Takpa *thi* is a contraction of a similar form. The Singpho *ai-ma*, and Chepang *ya-zho* appear to be Sifan (*a-ri* Thochu, *ra* Horpa).

2. The forms of Bhotian, *gnyis*, *nyi*, so closely resemble the Gyarung *ka-ne*, *ki-nis*, that the affinities of the Himalayan varieties are somewhat uncertain. The Serpa and Lhopa *nyi* and Changlo *nyik* are the only undoubted Bhotian forms.

The Sifan broad form (Thochu *nga-ri*, Manyak *na-bi*) is found in Takpa *na-i*, in Kachari Bodo *na-i*, in Burman *nha-ik*, *nha-ch*, and in Naga *a-na*, *a-na-t*, the Ultraindian forms with final *t*, *ch*, *k* being referable to Sifan varieties which possessed a final consonant like Bhotian and Gyarung.

The common Ultraindian forms have *i*, *e*. Burman *nhi-t*, Nicobar *ne-t*, Kuki *ni-ka*, Naga *va-nyi*, *a-nyi*, *ih*, *a-ne*, Thungblu *ne*, Kami *ni*, Abor *a-ni*, *a-ni-ko*, Mikir *hi-ni*, Mishmi *ka-ning*, *ka-ying* (final *ng* as in *l*), Garo *gi-ning*, *a-ning*, Bodo *man-ne*, Dhimal *ne-long*. The variation off to *e* is also Horpa, *nge*, and Gyarung, *ka-ne-s*. The final is preserved in the Naga *7*, *i-ngi-t*, *ni-th*, *ta-ne-t* (Gyarung *ka-ne-s*), *a-na-th*. The Singpho *n-khong* is a variation of the Naga *a-ni-ko*, and the Sibangor Miri *n-go-ye* is a similar form with a superadded postfix found in higher numbers, *a-pi-e* 4, &c.

The Lepcha and Limbu *nye-t*, *nye-t-sh* have the Bhotian *y* augment, but the vowel is Sifan-Ultraindian. The Murmi *gni*, Sunwar *ni-shi*, Magar *ni* may be Bhotian, but Sifan-Ultraindian has similar forms, and the general affinities of the Nepal dialects are S.-U. more than Bhotian.

3. The Limbu, Kiranti, Takpa and Chepang forms in *u*, with the Murmi in *o* (*suw*, *eyuw*, *som*) appear to be Bhotian, like the Serpa and Lhopa. The Newar *son*, Gurung and Magar *song*, Taying Mishmi *ka-chong*, Mez. Ang. *en* (Horpa), Burman *song*, *song*, Dhimal *son*, Singpho *ma-sum*, Bongju *tum-kar*, Kuki *tum-ka*, Khyang *thum*, *pa-*

thong. Kumi tum. Kami *ka-tum*, Mru shun, Tunglhu thung, Abor-Miri *a-um-ko*, *a-om-ko*, *ang-om*, *a-um-a*, have also the Bhotian vowel, but as so wide a diffusion in Ultraiidia of the Bhotian form of the numeral would be exceptional, and as Horpa has also *u* (*eu*), it is probable that *u*, *o* forms at one time existed in Eastern Tibet also, and were thence transmitted to the Burman branch of the Ultraiido-Gangetic family. It is probable that the *i* of Thochu and Manyak has been substituted for an archaic *u*, (Bhotian and Horpa), because the interposed Gyarung has adopted or retained the current Chinese form *sa-m*, and the *i* form has made little progress in Ultraiidia. The change is similar to that of *brul*, *snake*, to *bri*. The Gyarung must have had the proper Chinese form when its glossary was carried to Ultraiidia. The Nipal terms in *um*, *om*, may be of Ultraiidian and not of Bhotian derivation.

The Chinese vowel *a* is retained in Gyarung *ka-sam*, and in the Ultraiido-Gangetic Mijhu Mishmi *ka-cham*, Mikir *ka-tham*, Garo *gi-tham*, Naga *sa-m*, *a-zam*, *van-ram*, Kachari Bodo *tham*, Dophla *a-am*, Changlo and Lepcha *sa-m* and Sunwar *sang*.

The Thochu and Manyak slender variety *k-shi ri*, *si-bi* is only represented to the south by the Sak thin, but the coincidence appears to be accidental as the other Sak numerals have no special agreement with Manyak.

#### 4. The Bhotian *bzhi*, *zhyi* is Serpa and Lhopa.

All the other Himalayan terms and all or nearly all the Ultraiidian have the Sifan form, Gyarung *ka-di*, *p-li*, Manyak *re-bi*, Horpa *hla*, *le*. The form *p-li* is remarkable. It is only found in the Gyarung *ka p-li-si* 40, where it appears as a root with the ordinary Gyarung prefix *ka-*. *Ka-di*, 4, is the true Gyarung form, and *p-li* must have been borrowed from a Sifan dialect in which *p* and not *k* was the prefix. The archaic prevalence of such a dialect is supported by the currency of the labial, let as the qualitative postfix in Bhotian (*po*, *bo*, *mo*),—2d, as the numeral postfix in Manyak *-bi*,—3d, as a prefix in the Bhotian 4, 7, 8 and 10 and in Bhotian verbs,—and by the prefixal position of the qualitative def. in Horpa (*ka*, *ga*, &c.) and Manyak (*de*, *da*, &c.), and of the qualitative and numeral def. in Gyarung (*ka*). The labial is one of the archaic attributive definitives of the Tibetan formation (qualitative, numeral, assertive), and the regular archaic position of such definitives was prefixal. The dialect from which Gyarung borrowed *p-li*, must have been a very influential one, as a similar form has been widely dispersed on the southern side of the mountains. It appears to be now represented by Takpa in which *p-li* is 4, and in which it is explained as the Bhotian prefix (*b*) joined to the Sifan liquid form of the root, *di*, *rhi*, *re*. Takpa *ph*, Abor *a pi-ko*, Taying Mishmi *ka-prei* (as in the Gyarung 8), Mijhu Mishmi *b ri si* 40, Garo *bri* Bodo *bre*, Dophla *a pli*, Mikir *phili*, Sin-pho *meli*, Naga *beli*, *pi*, *phali*, *a-li*, Kami *mali*, Sak *pri*, Changlo *phi*, Chepang *plot-zho*, Lepcha *phali*, Murmi, *bi*, Magar *buli*, Newar *pi*, Gurung *p-li*. The Nogaung Naga *pa-z* is an example of a similar form in which the root has the broad form of Thochu *zha*, Angami N. *da*, &c.

The Manyak variety *re* is Moz. Naga *deh* (comp. Gyar. *di*), Burman and Sunwar *le*. It is also found with the prefix in the Naga *phale*. Bodo *bre* 4, Gurung and Murmi *pre* 8, Kiranti *re-ya* 8. These forms are examples of the operation of a similar phonetic tendency.

The *a* form of Thochu, *g zha re* 4, *kh ra re* 8, and Horpa, *hla*, is not

found to the south, save in Ang. Naga da, and a few forms for 8,—Singpho *ma taat*, Bodo *jat*, Dophla *pla-g-nag*, Kasia *prah*.

There is no southern dialect in which *p* is found regularly prefixed to the other numeral roots as well as to 4 and 8. It is probable therefore that it was not carried across the Himalayas by a dialect like Manyak in which it was current as the regular numeral servile, but by one in which it had become restricted to 4, &c., or which had borrowed it from a system in which it was regularly used. Shendu has *me* as its prefix throughout, but as 4 is *me puli*, *puli* must have been received by it as a concrete vocable or root, in like manner as Gyarung received the *pli* of *ka-pli*. So also Bodo has *man*—throughout, and 4 is *man-b-re*. But in Singpho and some of the Naga dialects the use of the labial in 4 corresponds with its use in several of the other numerals,—3 *masum*, 4 *meli* (40 *mi-si*), 5 *manga*, 8 *maisat*. The change of the vowel in 4, is explained by its assimilation to that of the root. In the Kani *mali*, Naga *phale*, Lepcha *phali*, the primary vowel of the prefix remains.

The west Himalayan (Nipal) forms are evidently of Ultraiindian—chiefly Naga—derivation,

5. The Bhotian and Manyak forms are the same, *ngo*, *ngs*, and Gyarung is only distinguished from them by the vowel, *o*, which is Chinese. The *a* form is the most common in the Himalayas and it prevails almost exclusively in Ultraiindia. In general it is probably of Sitan (Manyak) and not of Bhotian derivation. The Chinese and Gyarung *ngo* is found in Lepcha *pha-ngon* and Sunwar *ngo*. It was probably a North Ultraiindian form also before it spread to Nipal. It has now been found in Taying Mishmi *ma ngu*.

The Takpa *lia-nge* repeats the root for 4, as a prefix to that for 5, and the same usage is found in Miri *pi li ngo-ko*, Bungju *rai nga-kar* and Mijhu Mishmi *ka-lai* (with the root for 5 elided). These terms appear to explain the Kambojan *p-ra-m*, Anam *la m*, na-m, Nancowry *la-m 5*.

6. The Bhotian and Sitan forms are similar. Bhotian has *u*, Gyarung and Horpa *o*. But Manyak has *u* and Takpa *o*. The Bhotian *thu, dhu, tuk*, is probably the original of the Murmi *dyo*, Newar *khu*, and Changlo *khun*. See App.

The Bhotian *wr. druk* is similar to the Manyak *tru-bi*. This variety and another with the *k*-prefix appear to have been the originals of the common southern variety. Takpa *kro* (Gyarung *kutok*, Thochu *kha-tare*) Singpo *kro*, Garo *krok*, Taying Mishmi *tha-ro*, Mikir *thorok*, Naga *tarok, the-lok, arok, irok, soru*, Burman *khrauk, khyauk*, Sak *khyouk*, Kumi *taru*, Kami *tau*, Shendu *me-churu*, Kuki *ruka*, Tunglu *ther*, Chepang *kiuk-zho*, Lepcha *tarok*, Sunwar *ruk*. The *a* form of Thochu *kha-ta-re* is not found in the south. The Burman amplified *kh-rauk* is the original of the Mon *ka-rao*, Ka *tau*, Khyeng *shauk*, Anam *sau*. The form that has intruded into the Vindyan system *tu*, *tu* and been received by it as a root to which a native poss. and qual. definitive has been postfixed (*tu-u-sa*, *tu-ta*, *tu-u-i* &c.), resembles the Bhotian *d-ruk*, Takpa *k-ro*, Mikir *thorok*, Angami Naga *soru*, Shindu *churu*. The Gond *sa-rong* resembles the Naga *tarok, soru*. The Mijhu Mishmi *ka-tham* is the Gyarung 3, *ka-sam* (i. e. 3 dual).

7. The exceptional Bhotian *b- dun, dun* is only found in Serpa *dyun*, Lhopa *dun* and Changlo *zum*.

The Gyarung quinary *ku-sh-nes*, Horpa *z-ne* (2 for 5, 2) are the Tibetan

representatives of the prevalent Ultraindo Gangetic term. The Gyarung prefix occurs in Abor-Miri and Burman *ku ni* &c. The Tibetan *sh*, *s* is found in Singpho, Garo, Karen &c. The curt Horpa *zne* resembles the Bodo and Garo *soi*, Bongju *sre*, Kuki *sri*. The Naga and Yuma *tani*, *thanyet*, *zanet*, *anath*, *sarika*, *sari*, Burman *kunaik*, &c. appear to be connected with the Mijhu Mishmi *nun* (*ning* in 2), Abor *ko-nange*, Daphla *ka nag*, Chepang *cha-na-zho*, Sunwar *cha ni*.

8 The Bhotian *brgyud* is not found to the south. The *sp.* form *gye* is Serpa and Lhopa. The Gangeto-Ultraindian forms generally are Sifan. (See 4).

The west Himalayan terms are of eastern derivation, Chepang *prap zho*, Dophla *plag-nag*. (Thochu *khra-re*, 8, *gzha-re*, 4, Horpa *hla* 4); Lepcha *kakeu*,—Kam *kava*; Kiranti-*reya*, Murmi, Gurung *pre*,—*bre*, 4, Bodo, *phale* 4 Naga, (*rebi* 4 Manyak, *leska* 40 Horpa) *pre* 2 Mru.

The Gyarung *or-yet* has an exceptional prefix, but it is found in Ultraindia as a variation of *t*, *s*. Mru has it in 8 *ri-yat* and 7 *ra-nhit*. Taying Mishmi has *el-yem*.

9. The Bhotian and Sifan terms are the same. The Lepcha *ka-kyot*, Chepang *taku*, resemble the Takpa *du gu*, Dophla *kayo*, Taying Mishmi *konyong*, Naga *taku*, Kuki *koka*, Tunghu *kur*.

10. The Bhotian broad form *ochu*, *chuh* is found in Gyarung and Tibarkad only.

The Bhotian varieties of the Chino-Tibetan numerals have therefore made as little progress as the pronouns. They are hardly found beyond the southern Bhotian dialects,—Serpa and Lhopa—save in the Bhotio-Sifan forms of Takpa. But there are a few examples of a very archaic existence of Bhotian forms in Sifan-Ultraindian systems or of a special connection between such systems and Bhotian in one of its older stages. The Bhotian labial numeral prefix appears at some remote period to have been used in Sifan and Ultraindian dialects. In some it is now more regularly used than in Bhotian.

The Ultraindo-Gangetic varieties are either current Sifan, or are connected in such a mode with the Sifan as to show that they must have been derived from systems that once existed in Eastern Tibet, although they are now represented only by remnants that have been adopted into the surviving systems. The most prevalent Ultraindian systems appear to have been the Naga—Yuma which spread westward along the sub-Himalayas to Nipal.

5. *Miscellaneous vocables.*

The ethnic place and influence of the Tibetan glossaries can only be properly shown by means of general comparative tables of all the known forms of South East Asian roots. These tables must embrace, 1st, the Chinese, 2d, the Scythic, with the allied N. E. Asian, Caucasian, Indo-European, Semito-African and Malagaso-Polynesian forms, 3d, the Dravirian and Draviro-Asonesian, 4th, the Tibeto-Ultraindian and derivative Himalayo-Asonesian, and, 5th, the Mon-Anam and derivative Himalayo-Asonesian. The comparative vocabularies of this kind which I have compiled are not yet complete enough for publication; and, for the present, I must refer the reader to the appended vocabularies, although, from the time that has passed since they were prepared, they are, to a large extent, out of date. I shall here examine some groups of roots with more exactness and fullness. The general result of the comparisons I have hitherto been able to make, may first be briefly stated.

The various forms and applications of almost any single root, and the manner in which they are now found dispersed amongst the Tibeto-Ultraindian and Mon-Anam vocabularies, justify the following inferences.

1st. The Himalaic glossaries have an archaic radical connection with the Chinese.

2d. They have both an archaic radical and an intimate secondary connection with the Scythic glossaries. Not only the root, but various forms and applications of it, are often common to the two provinces. Of these Scythic forms some have been retained in Tibet, while others are now obsolete there, but current in Gangeto-Ultraindian vocabularies. The Tibeto-Burman and Mon-Anam glossaries possess many of the normal variations to which roots are liable in Scythic from the change of the vowel; from the assumption or discarding of a final consonant, mutable from a dental, sibilant or guttural to a liquid; and from the presence or absence of a servile definitive. In the ancient Bhotian and the allied southern forms, and in the less emasculated Mon-Anam forms, the Scythic consonantal finals are found much more frequently than in Chinese. Even the ancient Chinese forms are frequently less consonantal than the Mon-Anam, the Scythic and many of the ancient Bhotian. The influence of the modern emasculated Chinese is strongly marked in all the Tibeto-Ultraindian phonologies, including the broadest and most consonantal.

3d. There are special Ugro-Turkish and Turkish affinities.

4th. Various forms of the roots must have been carried by different routes and migrations, and by different tribes, from Tibet across the Himalayas.

5th. From the variety of these cis-Himalayan forms, the mode of their distribution, and the preservation of several that have been lost in Tibet, it is certain that the Tibetan migrations to the southward commenced at a very remote period.

6th. In the Gangeto-Ultraindian province these forms were further dispersed and modified; and distinct lines of diffusion are recognizable.

7th. It is probable that from each of the southern ethnic districts of Tibet, migrations have taken place in different ages, and that the limits and mutual relations of the tribes have varied. At present the tribes in contact with the sub-Himalayans, and possessing all the known passes, are the Bhotias and the Takpas.

The Bhotias are conterminous with the Gangetic tribes of the Himalayas, from the Tiberkhad to the Mishmi. The Takpa appear to march with the Dophla and Abor. They are succeeded again by the Bhotias of Kham, who possess the passes at the head of the Assam valley, descend as traders into the Mishmi country, and probably march with the eastern Abors. The Bhotian dialect appears to march on the N. E. with the Mongolian Sokpa, which, on the south, is separated by the Amdoan dialect of Bhotian from the Thochu. To the south of the last, the Gyarung appears to march with Bhotian throughout the rest of its eastern limit. On the western half of the northern boundary, Bhotian is succeeded by the Horpa,—which has Bhotian on the south, Mongolian on the east, and Turkish on the north-west. It is thus, like Sokpa, widely separated from the south Himalayan dialects, but there are numerous scattered Horpas as well as Sokpas in Tibet proper.

The Thochu appears to have the Bhotian on its north and west, Gyarung on its south, and Chinese on its east.

Gyarung has on the N., Thochu,—W., Bhotian,—S., Manyak,—and E., Chinese. Whether it approaches any of the passes of the Irawady basin does not appear. It probably embraces a portion of the basin of the Me-nam and Yang-tse-kiang, and marches with the other dialects of south western Sze-chuen. The Manyak is probably interposed between it and the northern dialects of the Burman and Lau families.

The Manyak appears to lie to the southward of the line formed by southern Gyarung, Khampa Bhotian and Takpa. It is probably therefore placed on the Irawady passes, and may be in contact with some of the undescribed dialects to the north of the Singpho. On the east and south the Manyak are probably conterminous with some of the tribes of S. W. Sze-chuen, and N. Yun-nan, if indeed they are not themselves the Mong-fan of Sze-chuen.

From this distribution of the Tibetan dialects we should infer that the position of the Bhotian vocabularies would enable them to affect the whole line of the Gangetic ones,—that the influence of the Takpa would be confined to the Abor group,—and that the Manyak and perhaps the Gyarung might affect the Irawady vocabularies.

We find, however, that many of the vocables that are distinctly Bhotian, i. e. both in form and meaning, have a very limited range, by no means commensurate with the present influential position of the dialect, and irreconcilable with an exclusive possession, for any long period, of such a position.

Many of the most widely diffused Ultraindo-Gangetic roots and forms are common to Bhotian with Sifan vocabularies. Others are exclusively Bhotian, and others again are exclusively Sifan. The broad and frequently consonantal forms prevailed in Tibet when the southern migrations commenced, for they are the most common in the southern vocabularies. These archaic forms are frequently still retained in Bhotian, where the Sifan forms have become slender or vocalised. Manyak sometimes retains broad vowels where they have been lost in the other Sifan vocabularies and especially in Gyarung. The Sifan vocabularies have some non-Bhotian roots and forms in common with Mon-Anam, as might have been anticipated from the northern origin of the latter formation. The slender and attenuated forms of the Sifan vocabularies, and particularly of Gyarung, have spread to the south at a comparatively late period.

There have been two well marked periods of Sifan and Bhotian influence in the south. The first was when the southern migrations commenced, and when the Sifan forms of common roots were probably the same as the Bhotian. It is difficult therefore to ascertain what common roots of this period are to be considered as of Bhotian or of Sifan origin exclusively. The prefixes afford some clue. The second period is a very modern one. The Bhotian forms referable to it are in general confined to the southern Bhotian dialects, to the adjacent Nipal dialects, and to Takpa, but they are also partially found in more southern dialects. The spread of the later or slender Gyarung forms to the southward indicates a distinct movement from the archaic Tibetan and the modern Bhotian migrations.

The Chinese influence on the Tibeto-Ultraindian dialects has been of the highest importance, and very complex. There is a radical community of roots. Chinese has at later periods given numerous vocables to all the Tibetan vocabularies, and many of these have been carried to the southward. Chinese has also directly influenced all the southern phonologies and vocabularies, Mon-Anam, Naga-Manipurian, Karen and Burman. From these, and especially from Naga-Manipurian, Chinese roots and particles have been carried westward to the Nipal and Milchanang vocabularies.

The Gyarung is closely and immediately connected with the latest of the dominant North Ultraindian families, the Burmanic. As this family extends from the Singpho and Jili in the north of the Irawadi basin to Burman in the south, it is probable that it arose from an extension of the Gyarung to the south, but it also appears to have had a common basis with the older Ultraindian dialects. The Abor dialects appear to be partly embraced in this system, and it has influenced the Nipal vocabularies.

The Naga-Manipurian branch appears to be older than the Burmanic, and to be specially connected with Gyarung in its older or less emasculated form, and with Takpa. But as it has archaic affinities with Thochu, Horpa and Bhotian, it is probable that several Tibetan dialects have marched with the Gangeto-Ultraindian, and, during a long course of time, successively or simultaneously disseminated their vocables to the southward. The Mon-Anam affinities of the Naga-Manipurian vocabularies greatly strengthen the inference that their connection with Ultraindia is very archaic.

The Himalaic glossary is, in great measure, primitive and homogeneous. The dialectic modifications of the same roots are so various and so well marked, as to show that the group has retained its independence and segregation from the very commencement of glossarial development, and that distinct dialects were formed during that era. So far as other vocabularies are radically connected with the Himalaic, the connection is mainly to be ascribed to their having been primitively branches of the same stem,—dialects of the same mother-tongue. The Himalaic branch has remained more homogeneous and more faithful to the primary phase of the common glossary, because the location of the tribes who have preserved it. has given them a high degree of exemption from foreign domination and influence. The glossary is less mixed than that of most of the other linguistic families, while it has radical affinities with all of them. The Caucasian group occupies a similar sequestered position, and it is radically related to the Scythic, Semitic, African, Indo-European and Dravido-Australian, in the same mode as the still more primitive Himalaic is related not only to it and to these, but to the Mon-Anam group and to the Chinese.

The Himalaic glossary has spread to the southward over all Ultraindia, much of India, and most of Asonesia. Whether the Ugro-Caucasian and other cognate glossaries spread from the Himalaic province, or the Himalaic were derived, with them, from some other primitive seat, is a question that does not admit of so ready an answer. But from the pronouns and particles, it is probable that the ultimate basis of the Himalaic glossary was a Chinese dialect, and that the great mass of the substantive vocabulary was introduced from the primary Scythic province. The Dravido-Australian glossary appears to have been also formed at a period long preceding the spread of the Himalaic glossary in its present form to the southward of the mountains, by the engraftment of a Scythic form and glossary on a Himalaic basis.

#### NAMES OF ATTRIBUTES.

Mr. Brown's vocabularies contain substantives only, so that the Manipuri dialects are not included in this comparison. The omission is unfortunate, as, next to the definitives and pronouns, attributive words (qualitatives and assertives) are the most stable.

The relations shown by the distribution of the names for the colours and their various applications, are, for the most part, archaic. In Tibet various forms and applications appear to have arisen in an early period of the history of the formation. Both the primary full forms and the secondary contracted ones, are found in the Gangeto-Ultraindian vocabularies.

For example, the most important of the Tibetan roots for *black* is the liquid. In the existing Tibetan vocabularies it has several forms and applications. The full archaic form was probably *nag*, *nak*, *lag*, *lak*, *rak*, *rak* &c. It retains such a form in the words for *black* and *crow* in Bhotian and Gyarung, and in several of the Irawady and Gangetic vocabularies. It takes the dental or guttural prefix in Gyarung and several of the southern dialects. A form with the labial prefix is also very archaic. It is found in the word for the *crow* in Bhotian and Gyarung, and contractions of it are current in Bhotian words for *blue* and *red*, in Gyarung and southern words for *night*, and in Naga words for the *crow*. These applications show that the root must have been at one time current with the labial prefix in Tibet, in its primary meaning, *black*, *dark*. The Bhotian *mo-n*, *wo-n* *blue*, Murmi *mo-n* *night*, Gyarung *mo-r* *night*, even render it probable that the form *mo-nag*, *mo-rak* &c. had acquired the contracted form *mo-n*, *mo-r*, before it ceased to be used with its primary meaning. It is not probable that the same dialect would have both the full and contracted forms current as *black*. The formation and preservation of distinct varieties of the same root, and the restriction of each to a specific use, are mainly effects of the existence of dialects. The application of other varieties to *red* must be explained in the same way. The Bhotian *ma-r*, Gyarung *ve-r*, were probably derived from a dialect in which the labial pref. was *ma-* and not *mo-*. The form of the root in the more common word for *red*, *ngi*, *ni*, shows that it originated in a dialect in which *nak*, *black*, had taken the slender form, *nyak* or *nyik*. This attenuation of the archaic forms distinguishes the later from the older Tibetan phonology. It is a Sifan and Horpa trait. The contracted form *ni*, with its application to *red*, must therefore be comparatively modern. *Red* must have been known by other terms or forms in the earlier ages of the formation. Horpa and Thoblu having the slender form of *nak*, with its primary meaning *black*, the



source of the secondary word *ngi*, *ni*, *red*, is manifest. As Thochu has a distinct vocable, it probably spread from Horpa to Gyarung and Manyak. It has not been received by Bhotian; and Gya ung, in adopting it, has retained also the older word (*ku-ver-ni*). The *ni*, *ling*, *ri*, *nya*, of Burman, Angami, &c. show that it has spread to the south.

### Black.

*nag-po* Bh. w., *nak-po* Bh. s., and *Takpa*, *nya-nya* Horpa, *nyik* Thochu, *ka-nak* Gyarung, *da-na* Manyak.

Obs. The Gyarung form is the same as the Bhotian sp. The vocalic and elliptic *nya*, Horpa, is perhaps the original of the Manyak *na*. Thochu has the amplified vowel of Horpa and *i* for *a*, as in so many Sitan words.

In most glossarial groups the root for *black* is applied to other dark colours, *blue*, *green*, *red* &c.—to *darkness*, *night*, the *crow*, &c.—as that for *white* is to *light*, *bright*, *day*, *shy*, *air*, *sun*, *moon*, *silver* &c. The Tibetan vocabularies are too limited to enable us to trace the applications and affinities of the root for *black*. That for *blue* is not given. The roots for *green* are different. The Tibetan and Scythic roots for *black* are applied to the *crow*;—*nyag-wo* Thochu, *ak-po* Takpa, *ab-lak* Bhot. sp. (*ka-lak* Serpa), *ta-b-rok* Gyarung, *a-lok* Lepcha, *ka-tha-rak* Khoibu, (*rok* *black*, *Milchanang*), *m-long-ya* Gurung (also *black*); *khere* Sokpa, *kal* Horpa, *kali* Manyak (*kara*, *black*, Turkish, *chara* Mongol. &c.) The ultimate Scythic root is probably found in the wr. Bhotian *khata*, Sunwar *khad*, Newar *ko*. In Sanskrit the root *kara* has both applications, as in Scythic.

The Tibetan roots for *night* are different, but I give them here as they are applied to *black*, *blue*, *green*, in some of the southern vocabularies.

1. *m-tshan-mo* Bh. wr., *a-sha* Thochu, *chen-mo* Bh. sp., *sen-ti* Takpa, (*-ti* as in *gok-ti* head, *nyen-ti* day &c.). Comp. *achsham* Turkish, so, *chei* Mong., *sai*, *sii*, *shig* Yeniseian. In Chinese the root is *black*, *tso* (also, *hak*) *Quang-tung* [*hi*, *wu* *Kwan-hwa*].

2. *spha* Horpa [*spa*, *shpa* Pashtu, *shab* Hind., *chshefe* Zend, *kshapa*, Sansk.]

3. *to-di* Gyarung [*tin* Turkish, *oti*, at &c. Ugrian].

4. *tong-mor* Gyarung.

5. *kwaka'* Manyak.

The root *tshan*, *chen*, is also used, in combination with another root, for *green*, *h-jang* khu Bh. wr., *ghan-gu* Bh. sp., Horpa, *zyang-ku* Thochu, *chan-gu* Takpa. The second roots *green* and *blue* in Scythic, *kho-kho* Sokpa, *ko-ko*, *ku-ku* Mong., Tungusian, *ko-k*, *ku-k* Turkish. The Tibetan *tshan*, *sen*, *zyang* &c. is used in Chinese for *green* with the same form *sang*, *tsing*.

The common Tibetan root for *black* is not, in the *n-g*, *l-k* form, Chinese. It belongs to the archaic Scytho-Tibetan glossary. Scythic vocabularies have distinct roots for *black*, but *nog* is applied to *blue* and *green*; *nog-on* *blue*, *green* Tungusian, *nog-o*, *nog-on*, *nach-on* *green* Mongolian.

The Tibetan root is found with the same meaning in the Naga gr. *ta-nak* (Gyarung *ku-nak*), *a-nyak*, *nyak*, *nyak-la*, *nak*,—B rman *nak*, *net*, (Koreng, *crom*, *nget*),—Bongju *nik-nu*,—Garo *pe-nek*,—Abor *yak-ar*, *yaka-dak*,—Lepcha *a-nok*,—Milchanang *rok*, *reg*, (also *blue*, *rak*, *rok*, and *green*, *rag*). It is both *black* and *blue* in *Joboka* *nak*, Nogaung *ta-nak*, and *Tengsa* *nyang* *blue*, *nyak* *black*, Gurung *m-long-ya*, Murni *m-lang-ai*. Kinawari Bhotian has *nang-mo* as well as *nak-po*. Khari Naga has the form *luk* in *shim-phu-luk*, *green*.

Mak is merely a variation of nak. In Gyarung it is applied to *green*, *kar-myak*. It is found with the meaning *black* in Taying Mishmi, *mak-wa*, Limbu *ku-mak-la*, and Kiranti *maka-chak-wa*.

Both forms, *nak*, *mak* &c., enter into names for *night* (*sky-black*, *air-black* &c.), *darkness* &c. Namsang, *darkness*, *rang-nyak* (*rang-vo light*, i. e. *sky-white*, *a-po white*); Muthun *rang-nak*, *darkness*, *night*; Joboka *rang-nak darkness*; Mulung, *darkness*, *nyak*, *night*, *vang-mak*; Tablung, *darkness*, *nyak*, *night* *vang-niak*; Burman, *night*, *nyin*, *nya*.

The Tibetan *tshan*, *sha*, *chen*, *sen*, *night*, is both *night* and *black* in southern vocabularies. As *night* it is found in Naga *e-sang-di* (*sen-ti* Takpa), Limbu *ku-sen*, *sen-dik* (Takpa *sen-tr*); Newar *cha*, Kapwi *zying-pa*, Koreng *n-chun*, Manipuri *a-hing*.

As *black* it is Singphu *chang*, *cham*, Bodo *ga-cham*, Mon *chang*, *ka-tsau*, *ka-chok*, Changlo *chang-lo*.

The Karen *thu*, *thun*, *su*, is not Tibetan but Chinese, *tso*.

The Tibetan form is also applied to *green*, as in Tibetan, and to *blue* and *red*. Blue Khari *ching-mi* and Namsang *a-ham*. *Green*, Tengsa and Nau-gang *ta-cham*, Khari *shim-phu-luk*, Namsang *a-hing*, Joboka *hing*, Kiranti *chak-la*. It is applied to *red* in Kyau *a-tshen*, Khyeng *sen*, Bongju *tsin*, Men *chang*, Namsang *a-chak*, Garo *pi-sak*, Bodo *ga-ja*, Milchanang *shing*. The Thochu *shi-dzi*, *red*, is probably the same root.

The Magar double *chik chi* appears to be a slender form of *chak*,—as *che*, *sen* &c. is of *tshan* &c.

The Gyarung *to-di night*, (Scythic *oti*, *tin* &c.) is the root for *black* in Angami *ke-ti*, *ka-ti*. It is probably found in *ti-zi night* in the sonant form *zi* [= *di*, Gyar.), *ti* being *sky* and *ti-so day* (*sky-white*): Tengsa *a-sang-di night*.

The Gyarung *mor night*, is not a common form in the Tibetan vocabulary of colours. It has the same meaning, *night*, in Murni, *mon*. The pan of *rang-pan night*, Namsang, is the same vocable, and it is also found in Garo *walo*, Maram *mula*, Champung *nga-yula*, Luhuppa and N. Tangkul *maya* (*y* for *l*, *r*), S. Tangkal *ayan*,—forms which accord with the inference deducible from those used for *red*, that the root is the liquid *la*, *ra*, *na* &c. identical with *na-k* &c., and that *mon*, *mar* &c. are contractions of which the primary Tibetan form was probably *mo-nag*, *ma-rag* &c. Comp *ab-lak cron* &c. Bhotian has *mon-o*, *s-won*, *blue*. It is *red* in the form *mar Bhotian*, ver Gyarung, *wol*, *bala*, &c. Gangeto-Ultraiidian. The primary meaning of *black*, *dark*, is necessary to explain the various applications. It also explains its use as a name for the *cron*, *walo*, *waru* Naga, *ola* Lhopa.

The Lhopa *phi-ru night*, appears to be a similar vocable.

The Manyak *kwaka night* appears to be the same reduplicated guttural root that is applied to *blue* and *green* in Scythic. It is current for *night* in Kiranti *khakwe*. The Deoria Chutia *sa-ko-ko* and Mikir *a-ku-k black* (Mikir *ingting kok dark*) are the same term.

The Lhopa *nam-mo*, Magar *nam-bik*, Sunwar *na-do*, Lepcha, *Jili*, *sa-nap*, Singpo *sa-na night*, contain the Tibetan word for *sky* *nam* (Khamti *nap-sing dark*).

*Nam*, *sky*, may itself be identical with the Chinese *lam*, *blue*, and thus be merely one of the archaic forms of the Chino-Himalaic and Scythic liquid root for *black*.

The Magar bik in nam-bik *night*, is Scythic, pit, pit-*n night* Samoiede, piti, piggita &c. *black* Ostiak (bis *blue* Yeniseian).

The Lau khun *night* is not Tibetan.

*Red.*

1. s-muk-po Bh. wr.
2. mar-po Bh. sp., ka-ver ni Gyarung.
3. gi-ngi Horpa, ka-ver ni Gyarung, da-ni Manyak, leu Takpa.
4. shi-dzi Thochu.

1. The old Bhotian muk is not found with the meaning *red* in the southern vocabularies. Limbu has muk-loh, *blue*, and it may occur with that application in others.

2. The sp. Bhotian mar, Gyarung ver, is a common Scythic, Caucasian and Semito-African root. If the labial be radical, the vocable is rare in the south Himalaic tongues. The Murmi bala, wala, Gurung wol-*kya*, resemble it, and they suggest that la &c. and bala, mar &c. are ultimately the same root (*ma-ra*, *ba-la*). See *Black*.

3. The Horpa, Gyarung and Manyak ngi, ni and Takpa leu are forms of a Chino-Himalaic root common in the Ultraindian tongues. Burman ni, Kumi p-ling, kan-lein, Tounghu ta-nya, Angami m-ri, ke-me-ri, (comp. Gyarung ver, prob. *ve-r*), Naga gr. ma-lam, mu-lam-la, ta-mu-ram, ma-ram, Kambojan ka-rhum, Deoria Chutia sa-ru, Abor ya-lung, lu-dak, Sunwar la-la, Kiranti ha-la-la-wa, Limbu ku-he-la, Lepcha a-he-ur. (Comp. Mong. ulan *red*).

The root in its broad consonantal form is *blue* in Chinese, lam Quang-tung, lan Kwan-hwa, whence the Karen la, tu-la, Limbu leh-la. Chinese has also lu *green*.

The application of lam to *red* and *blue* seems to show that its primary meaning was *black, dark* &c., for the same word would hardly be transferred from *red* to *blue*, or *vice versa*. In the older Himalaic formation of Ultraindia—the Mon-Anam—the root retains the meaning *black, dark* &c. Siam, Laos, Ahom dam, Khamti nam, Laos nin (the slender Tibeto-Burman form for *red*, ni, ri, ling &c.), Siam dam nin, Anam den (*night* dem), Kumi ka-num, Kami ma-nun, Kasia *darkness* dum, Nicobar *black* ringulum-t, Tounghu pa-leng. The root is very common in the Indonesian vocabularies in various forms, applied to *black, night, dark, fog* &c. tam, lam, lom, rang, rum, ri &c. &c.

The slender form is also *red* in the Lau family, deng, neng, len, forms corresponding with the Kumi ling, lein *red*, Tounghu leng, Lau-Anam nin, den *black*, and indicating a special relationship between the Mon-Anam and the older Irawady vocabularies.

The Dravirian and North Gangetic languages have the same root. The Male mar-go, *black*, is identical with the Bhotian mar *red*. The Kol ara, Telinga erra-pu, and the Hindi lal and Bengali ranga, resemble Nipal forms of the Chino-Himalaic root.

Finally, it appears probable that the Tibeto-Ultraindian nak, nang, lok, rok, long, lang, nyik, na &c. &c. *black, blue*,—the Chino-Ultraindian lam, lan, lu, nan, nam, lung, ru, nun, num, dum, &c. *blue, green, black, red*,—and the Tibeto-Ultraindian ni, ngi, ri, nin, ling &c. *red*, are all variations of one primary liquid root, which, in the eastern branch of the primitive glossary, early took the form la-m, la-n, and in the Tibetan the form na-g, la-g &c. The Sifan ni, ngi *red* (whence the Ultraindian ni, ri) has the slender form proper to the later Sifan phonology, and the original was

probably the common Tibetan root for *black*, which has undergone variations that approximate it to *ni*, the current gradations being *nak*, *nyik*, *nya-na*. The *m* forms for *black*, *blue* &c. in the Irawady and Mon-Anam vocabularies are evidently eastern or Chinese, and not Tibetan, in their immediate affinities. They appear to have been communicated by the Mon-Anam to the Tibeto-Ultraindian vocabularies.

The Tibeto-Ultraindian *tshan*, *sen* &c. *black*, *night* &c. is, as we have seen, applied to *red* in Singpho and some of the Yuma dialects.

A guttural root is found in Singpho, Khyeng, Joboka khi, Mon kit, ket, Karen go, gho, Magar gya-cho.

#### Green.

1. *k-jang* khu Bh. wr., *jhan-gu* Bh. sp., Horpa, *zyang-ku* Thochu *chan-gu* Takpa.

2. *kar-myak* Gyarung.

3. *chu gin do* Manyak. (? *chu-gin-do* a form of 1).

1. *jang*, *chan*, *zyang* &c. is the Tibeto-Ultraindian root for *black*, *dark*, *night* &c. already examined. It is applied to *green* in Naga dialects and in Kiranti. That this was an archaic application is shown by the Chinese *tsing*, *sang*. The guttural is the Scythic root for *blue* and *green*, also current in its double Scythic form in Manyak and some of the Gangetic languages for *night*, *black*, *dark*. The double form with a slender vowel is *green* in Sunwar *gi-gi*. Miri has *ge-dak*.

2. The Gyarung *myak* is one of the forms of the Tibeto-Ultraindian *nak*, *nyak* *black*.

The southern names for *green* are derived from the roots for *black*. In the Naga group we find *ta-cham*, *a-hing* &c., Kiranti *chak-la*.

Limbu has *leh-la*, Serpa and Lhopa *num-mo*, *nhyam-bo*, Gurung *ur-kyä*, Milchanang *rag*, Khari *shim-phu-luk*,—all forms of the liquid root also used for *black* &c. Chinese has *lu green*.

A labial is common. Angami *ke-peje*, Lepcha *phung phong*, Murmi *ping-ai*, Newar *wa won*, Magar *phi-phi dan-cho*.

#### White.

1. *d-kar-po* Bh. wr., *kar-po* sp. The Bhotian *kar* is probably a contraction of *ka-ru* (Comp. *khe-ru* Takpa).

2. *phru phru* (*ph-ru*) Horpa, *khe-ru* Takpa, *ka-prom* Gyarung (*p-rom*), *da-lu* Manyak.

3. *phyokh* Thochu.

1. The Bhotian root, if not a contraction of *ka-ru*, is archaic Scythic,—*kyr* Samoiede, *gil-taldi* Tungusian.

It is applied to *star* in Bhotian, *s kar-ma*, *kar-ma*, (Abor *ta-kar*), Horpa *s-gre*, Manyak *kra* (Burman *kre*).

In its primary meaning *kar* is only found in the south Bhotian dialects of Serpa *kar-po* and Lhopa *ka-po* (*star ka-m*). The Murmi *tara*, Gurung *tar-kyä* (also *star*) are modifications of it.

2. The more prevalent Tibetan *ph-ru*, *da-lu*, *ka-p-rom*, is Mijhu Mishmi *kam-ph-long*, Singphu *ph-rong*, Burman *ph-ru*, *ph-yu*, Kumi *k-lung*, *kan-lum*, Kami *a-lum*, Kyau *ag-nung*, Bongju *k-lang*, Garo *bok-lang*, Mikir *ako-lak*, Dohphla *pung-lug-pa*, Lepcha *a-dum*, *a-dom*. A slender form is found in Taying Mishmi, *leo-wa*, Kasia *ba-lih*, and Deoria Chutia *pu-ri*.

The Mijhu, Singphu and Burman forms, *phlong*, *phrong*, *phru*, are re-

ferable to the later concentered Horpa and Gyarung phru, prom. But the more common form in which the root does not take the labial prefix must be of older Tibetan derivation.

The root is applied to *air*, *light*, *day*, *sky*, *moon*, *star*, &c. The Tibetan forms for *air* have both the *u* and *a* vowel, as well as the slender modification lhak, dak; rhot, lung, ryu, zyu; li. The archaic final consonant is preserved in some of these forms. Similar forms are found in the southern vocabularies. The variation nung, nong, occurs in the Manipuri gr.; lom in Lau; and rang, nang, lam, lan &c. in several Naga-Gangetic vocabularies. The Tibetan names for the *moon* have the same root in the forms la, da, lik, le', lhe', le,—lik, le' &c. retaining the guttural final as in lhak, da' *air*. The *u* form is found in the Lau lun, Siam duen, nung, Yuma a-lu, lo. Anam has *k*-laang, *b*-lang. For *star* Gyarung has *tsi-ni*; Nam-sang *me-rik*; Mon nong, Lau fam., lau, dau, nau. [See 4, Names of inanimate natural objects].

The Chinese leuk, *light* in colour, is probably the same root.

3. The Thochu phyok may be a softening of an archaic form of 2. phyok for phrok. But as there is nothing to justify such an opinion, it must be considered as a labial and exceptional root.

The Chinese term is the same root. Kuang-tung preserves the full form pak. Kwan-hwa has pe. It is found also in the Tungusian bak-da, wag-da. Fin has wal-gi, Ugrian woi-kan &c., but the prevalent Scythic roots are different.

In the south it is only found in the Lau family, and some of the Irawadi-Gangetic vocabularies that have most affinities with that family.

Lau pheuk, Ahom phok, Khamti phuk, Khyeng buk, Bodo *gu-phut*, Garo bok-lang, Naga *a-po*, Miri *kam-po-duk*, Toung-thu and Pwo Karen bwa, Sgau Karen wa, Magar *bo-cho*, Sunwar bwi-sye. (Naga ting-puk *sky*). From the vowel *u*, *o*, occurring throughout, all these forms appear to be referable to a single vocabulary, probably the Lau. The contracted Naga-Karen forms are the parents of the Nipal *bo*, *bwi*. The *o*, *u* vowel connects the Lau with the Thochu form and not with the Chinese.

The Lau fam. has also a distinct root *khu*, *khong*.

The Naga *ma-sang*, *ta-ma-sing*, *me-sing*, heng, che, choh, Angami *ka-cha*, Dhimal *jee-ka*, Mon tchu, Nicobar *te-so*, *ti-so-ab*, Sunwar sye of bwi-sye, Tiberkhad chong, is a root common as applied to *light*, *star*, *moon* &c.

The Thochu *chha*, *moon*, appears to be the same root. It occurs with the same meaning in the Manipurian *ka-chang*, Milchanang *ga-tchang* (Tiberkhad chang *white*), Manyak nash-chah *day*, *sun*. Jili has *ka-tsan*, Singpho tsan, Bodo shan, Garo san, *ra-san*, Naga san, Kol singi, Burman *a-si*, N. Tangkhul *a-sun*, Tiberkhad zhang-*ma*; tsing-mik *sun* Luhuppa (*day-eye*), shi-mit N. Tangkhul. *Light*,—Jili has thwe, Singpho ning-thoi, Tangkhul she, shea, Kasia *ba-shai*. *Star*,—In Chinese it is applied to *star*, sing, sing, shan Kwangt.; tsin, tsing, is *light* (in colour) clear &c. *Sky* tsang-tien, tien Chinese, yi tien *day*.

Obs. 1. Both broad and slender forms of the roots have been anciently current in Tibet and have received different dialectic applications. The same root has also been applied differently in different dialects thus *nak* or *lak* is *black* in one voc., *crow* in a second, *blue* in a third, *green* in a fourth, *darkness*, *night*, in a fifth. Shan &c. is *black* in one dialect, *night*, *dark*, *blue*, *green*, *red*, in others. Where the root has more than one application in the same dialect the different meanings are sometimes distinguished by the definitives, as well as by the form of the root. This use of the def. is generally arbitrary. It sometimes

runs through several dialects, indicating a diffusion of the term, but in other cases the same def. occurs with a special force in one dialect and without it in others. Bhotian has *nak-po black*, *ab-lak crow*; Thochu *nyag-wo crow*, *nyik black*; Gyarung has *ka-nak black* (corresponding with the Serpa form of Bhotian *ka-lak*), while for *crow* it prefixes *ka* to the Bhot. compound of the root and the labial pref., *ka-b-rok*; Gurung uses the labial form with both meanings—*m-long-ya*. In the southern dialects the root occurs with the labial pref., and with the guttural or dental, in its primary meaning *black*, while one of the Manipuri dialects prefixes the gutt. to the dental in its word for the *crow*. All this is a consequence of the present dialects having been formed when the roots were not concentered with the prefixes, and when different def. might be used for the same purpose.

2. Slender forms of the root occur in Thochu *nyik*, Burman *net*, Korereng *nget*, Bongju *nik*. Garo *nek*, Milch, reg. *black*; Bhot. sp. *chen, night*.—Takpa, Limbu *sen black*,—Naga gr. *ching blue*, *hing green*,—Yuma *sen, tsin*, Milch. *shing red*; Horpa *ngi*, Gyar. *Man*, Burm. *ni*, Angami *ri*. Yuma *ling*, Lau *fam. len, deng &c. red*,—Lau, An. *nin, den*, Toung-thu *ling black*,—Burm. *nyin night*. The liquid root for *white* has only broad forms with that meaning in Tibet, but slender ones occur in the names for the *moon*. Deoria and Kasia have slender forms for *white*.

3. The special East Tibetan connection with the southern languages is well shown by the word for *red* in Gyarung. Manyak and Burman, *ni*; and by the word for *white* in Horpa, Gyarung, Mijhu *Mishmi*, Siugphu and Burman, *M. M.* preserving the double pref. of Gyarung. It also illustrates the special Gyarung and north Irawady element in Burman as distinguished from the older dialects of the same family, the Yuma forms being Takpa (which again appears to be Bhotian).

4. The Karen *thu*, *thun black* is Chinese; *ta la. la blue* is probably from the Chinese *lam*, and some of the Naga and Nipal terms appear to belong to the same relationship; *wa*, *bwa white* (*taka po light*) have Naga and Nipal aff.

5. The Mon-Anam family have a distinct archaic form of the liquid root for *black* and *night*. It is retained in the Yuma dialects and Kasia in a broad form; Lau and Anam have *e* forms. Slender forms are also applied to *red* in the Lau fam., and were probably communicated by it to those dialects of the Tibeto-Irawady family that first spread to the south, as these forms are found in Toung-thu and Kumi. The Lau word for *white*—similar to the Thochu—has been communicated to Khyeng, Boro and Garo; and in Karen and some Naga and Nipal dialects it is retained in a softened form.

I add a few more words of this class for the purpose of illustrating the connection between the Himalaic and Asonesian languages, but without attempting any exact comparisons. They are roots of a class that have many applications, and several of the published vocabularies do not contain them.

### Large.

#### TIBETAN.

1. *chhen-po* Bh. wr., *then-bo* Takpa, *kam-thu* Horpa, *ka-hti* Gyarung. See *Long* 2. Chinese, *long*, *cheung*, *chang &c.*

2. *s-bom-bo* Bh. wr., *bom-bo* s. and Lhopa, *pwi-tha* Thochu. Chinese *pi great*.

3. *kah kah* Manyak. ? Chinese *ku*; *broad kwan kwoh*.

#### SOUTHERN.

1. the-*ba* Gurung, *a-ti-m* Lepcha, *a-chung* Muthun, *chong* Joboka, *yong* Mulung, *yong-nong* Tablung, *joh* Angami, *jo-pur* Mozome A., *yom-ba* Limbu, *nga jang* Murmi.

2. *gu-ba* Singpho, *ta-pe*, *te-be* Tengsa Naga, *ta-pe-tiau* Khari, *jo-pur* M.

Angami (jo-su *long*), bote Abor, (*fat*, *ta-bok* Tengsa, Nogaung, *ta-bit* Khari, wa Burman, phum Singpho, also *fat* = *gu-phung* Bodo, kwi-pan Gyar., *round* wa' wa' Manyak.

4. *ka-tai* Mijhu Mishmi, *a-ta-dah* Miri, *u-to-yang* Kiranti, *tau-go* Newar, *go-da* Garo, *go-det* Bodo, *dham-ka* Dhim., (*fat* *a-ta-t* Namsang). This root is Chinese, tai, ta, Anam dai.

5. *d-rung* Taying Mishmi, *long*, *lung*, *luang*, Lau f., *ta-lulu* Nogaung Naga, *yong-nong* Tablung, *a-dong* Namsang, *nau* Muthun, *do* Karen, *len* Khyeng, *Kumi*, *leng* Kami (also *fat*), *tha-not* Mon, (*fat*, *u-do* Abor, *tok*, *tup* Burm.). See *Long* 1, Tib. ring, Southern long, lang &c.

*Round*, *ka-lar-lar* Gyarung, *lo-lo* Horpa, *z-lum-po* Bhot. wr., *ri-ri* sp., *bi-rhi* Takpa, *a-sya-ra* Thochu, *ta-rang* Nogaung, *din-din* Singpho, *k-lom* Siam, Ahom, *k-om* Lau, *pu-lun* Kami, *pu-lu* Khyeng, *ph-lu*, *ph-lon* Karen, *lun*, *long* Burman, *tung-lung* Toung-thu, *rer-rer-bo* Lepcha, *ril-to* Murmi. The Serpa *gir-mo*, Sunwar *kul-kul* *round*, Serpa *gir-bu* *fat*, Burm. *kri*, Magar *kran*, are probably contractions of the common monosyllabic kind of forms similar to the preceding—*k-ri*, or *ki-ri*, *gi-ri*, *ku-lu*—*ku-lu*, *ka-ran* [=Gyar. *ka-lar*, Nog. *ta-rang*, Mon *fat* *ku-ra*].

5 a. *kri*, *kyi* Burman, *gir-bu* Serpa, *kran-cho* Magar, (*round*, Serpa *gir-mo*, Sunwar *kul-kul*, *fat* *ha-ra* Mon, *kal-bo*, *gal-vo* Horpa, *cher-wa* Thochu). Prob. 5.

5 b. Lau f. *yai*, *yau* (also *long*). Prob. from *lau*, *rau*, forms of 5 used for *long*.

### Long.

#### TIBETAN.

1. *ring-po* Bh. w., *rim-ko* Bh. sp., *ring-bo* Takpa (*zug-ring* *tall*).

2. *ka-chi* Horpa, *dri-thu* Thochu (*ur* *thu* Sokpa), *sha-sha* Manyak. See *Large* 1.

3. *ka-sri* Gyarung (also *tall*); *dri*, Thochu and *sri* Gyar. may be *s-ri*, *d-ri* (1). In like manner the Manyak *hra hra*, *tall*, may be *h-ra*.

#### SOUTHERN.

1. *ka-long* Taying Mishmi, *ga-kh-rang* Mijhu M., *ga-lu* Singpho, Bodo, *rhin-ka* Dhimal, *ta-laur*, *a-lo*, *lo*, *lau*, *lang-ko-lo*, Naga, *pi-lo* Garo, *lot-cho* Magar; *rhin* Burm., *k-er-k-re* Angami, *ka-lein* Mon, *lui* Deoria Ch., *yau* Lau f. [*lau* Nag.], *reng-ba* Murmi, *rhim-bo* Gurung, *a-rhen* Lepcha. (See *Large* 5, *Tall* 2.)

2. *she* Burm., *jo-su* Mozome Angami. See *Large* 1.

### Tall.

#### TIBETAN.

1. *thom-bo* Bh. sp.

2. *ga-khye* Horpa. Chinese *ko*, *kau* *high*.

3. *bra-tha* Thochu.

4. *ka-sri* Gyar., *zug-ring* Takpa, *hra hra* Many. See *Long* 1, *Large* 7.

#### Southern.

1. *a-tho* Lepcha, *sung* Lau fam. See *Large* 1, 4.

4. *m-rang*, *m-yen* Burm., *lang-la* Naga, *lhun* Khyeng, *tha-lon* Mon. See *Long* 1, *Large* 5.

5. *tau* Mulung, *Tablung*; Chinese *kau*; (*t* for *k* as in *tau* 1, *thu* 9 &c.) *tau-ga* Newar *large*.

Obs. The root in *ch, th* occurs in Tibet both with broad and slender vowels.

1. *thu large* Horp., *thom tall* Bh., *tho* Lepcha, *dri thu long* Thochu, *jo su* Moz. Ang., *a-tum round* Namsang. To this are related the Naga *large chung, chong, yong, l imbu yom*,—*Lau tall sung*, which are still closer to the Chinese *cheung long*. Kiranti to.

2. *sha long* Many., *bra tha tall* Thochu.

3. *chhen large* Bh. wr, *then* Takpa, *thi* Gyar., *the* Gur., *tim* Lep.; *chi long* Horp., *she* Burm.

The liquid root has similar variations.

1. *lum, round*, Bh. w., *lom* Siam, *lo* Horpa, *lun, lu* Yuma, Burm., Kar.; *long, long*, Taying Mishmi, *lu* Sing., Bodo, Garo, *lo*, Nag.; *rung large* T. Mishmi, *lung, long* Lau f., *lu, dong, nong* Naga, *do* Karen. Mon; *rang long* Mijhu; *rang tall* Burm., Nag.

2. *lar round* Gyar., *ra* Thochu, *rang* Nogaung; *ran fat* Magar, *ra* Mon; *rang long* Mijhu; *rang tall* Burm., Nag.

3. *ri round* Bh. sp., *rhi* Takpa, *din* Singpho, *rer* Lepcha, *ril* Murmi; *k-ri fat* Burm., *gi-r* Serpa; *ring long* Bh. wr., *rim* sp., *s-ri* Gyar., *d-ri* Thochu, *rhin* Burm., *reng* Murmi, *reh* Lepcha, *rhim* Gurung.

Allowing for purely local changes, the distribution of these forms shows a special relation between Bhotian and Gyarung, and between both—but especially Bhotian—and the Irawady or Burman group on the one side, and the Nipal on the other.

As some of the dental words are variations of the liquid, I will only add the labial.

1. *bom large* Bh., *phum fat* Singpho, *phung* Bodo; *bote large* Abor, *bok fat* Tengsa, Nag., *po-tsu* Angami, *po-moja* Moz., *pur large, ke-mer round*, Ang.

2. *pan fat* Gyar., *tok pan* Kiranti; *ba large* Singph.; *pan round* Ahom, *man fat* Siam, *mon round* Khamti.

3. *pi large* Chinese; *pwi* Thochu, *pe, be* Tengsa, *pe, bi* Khari, *pi fat* Lau f.

The Lau lom *round, long, lung, large*, show a Bhotian affinity, which Mishmi partakes: *yau long* is a Naga form, *lau* Tabl., *ti-lhaun* Khari, *nau large* Muthun; *sung tall, high*, is also Naga, *jo su* Moz. Ang., *chung large* Muthun; *pan round* Ahom, *man fat* Siam, are Gyarung; *tui fat* Lau, is Naga, *po-tsu* Ang. *a-syu-m* Lepcha, *sui-ni large* Deor. Ch.; *pi fat* is Chinese, *pi large*.

The Mon *tha-not large*, is Joboka *fat* nut. Magar *lot-cho long*; *ka-lein long* is the common T. U. term; *tha-lon tall* is Khveng &c.; *ka-ra fat*, Magar *k-ran* &c.; *kha-toung round* is Anam ton, *Toung-thu tung-lung*, Abor, Namsang, Deoria tum.

The Karbojan *tom large* is *thu* &c. of Bhotian &c., but in the Bh. form for *tall* *thom*, Namsang &c. for *round*, *tum*; *mon round* is Khan ti (*fat* Siam *man*, Gyar. *pan*); *ri-sing long* has the T. U. *ri, ring*; *ka-pos high* (*bote large* Abor); *tuit small* is a form of the C. H. root for *small, short*, occurring in the Naga gr. *tut* for *short*, Joboka *tut*, Khari *tut-si*, Nor. *'at-su*; *lei-le short* is *small* in the Lau f. *lek* (Nams. *a-ring*).

The Anam *dai, large*, is Chinese (Kwang-t.) *tai*, and it has been communicated to Mijhu Mishmi, like many other Anam words; *jei thick* and *jei long* are probably connected with the Angami *se, si* and the cognate T. U. words; *ton round* is Mon *kha-toung*, *Toung-thu tung-lung*, Nam-



rang *a-tum*, Deor. Ch. *tumo-ru* &c., Miri *a-tum-dak*; kau *high* is Chinese kau (Kwan-hwa); nyo *small* is Chinese lioh (K-h.), or Lau, Burm. &c.; thap *short* is Lau, tam,—an archaic form of the Chino-Tibetan twan, thung, tha &c.

The K-t. Chinese tai, *large*, has been received by Anam and Mijhu; the aff. of pi and ku are archaic; kau *high* (K-h.), Anam kan, Mulung and Tablung tau, Karen tho, to, Toung-thu *a-kho* (K-t. kò); the close aff. of the roots for *small*, *little* with the T. U. appear to be all archaic; chang, cheung *long* has archaic aff.

#### Small.

#### TIBETAN.

1. chung Bh. wr: chun-chung Bh. s., chung-bo Takpa, ka-chai Gyarung, bra-tsi-tha Thochu. Chinese tsin, si, shiu, siao, sai, sie.

2. phra Bh. wr., pru Takpa, [bra-tsi-tha Thochu, bra-tha tall].

3. kam-ma Horpa.

3. yu Manyak.

#### SOUTHERN.

1. ka-tsi Singpho, ka-tshi *little* Pwo Karen, te-su Tengsa Naga, sui Tablung, (soh *short*), Mulung, ka-chu Angami (*thin* shya Burm., a-cha Namsang, a-chim Lepcha, yo-shu Limbu, ? a-hi-pia Muthun, hi Joboku.

2. a-ring Namsang Naga, ti-lala Naugong Naga, ning-haji Khari, lek, let Lau f., (*thin*, kam-rhang Horpa, ka-ri Manyak, rid-po Bhotian, nen-ma Serpa, ru-cho Magar.).

3. a-me-dak Miri, po Sgau Karen, pho Pwo, (phu *short*), a-hi-pia Muthun, (*thin*, ma-bo Bhotian, ta-pa Kumi, pam Khyeng a-po Tengsa, a-po-prr Nogaung, bye ko Lhopa.

2 che-ka Taying Mishmi.

4. a-ngi-do Abor, (gi-dak, *thin*), nge Burman, noi, on, lek nbi, Lau f. nao Khyeng, nyo Anam, lioh Chinese.

#### Short.

1. thung-po Bh. w., thun dung Bh. s., thong-po Takpa, ka-chan Gyarung, k-tha-tha Thochu (*man*), ga-de Horpa (*man*). Chinese tun, twan.

2. kalge Horpa.

3. wong-chi-tha Thochu.

4. dri-dra Manyak.

1. ka-tyoa Taying Mishmi, ga-thi Mijhu, ku-tun Singpho, to Burm., do Kumi, doi Kami, twe Khyeng a-ton, ta-tsu, tut, so Naga, a-tan Lepcha, tang-ba Limbu, dung-ta Kiranti; tam Lau fam., thap An. See *Small* 1.

3. See *Small* 3.

4. See *Small* 2.

#### Eat.

1. zo Bh. w., Takpa, so Bh. s., ta-zo Gyarung, a-dz Thochu, nga-jen Manyak (Chin. shik, shi).

Burm. cha, sa, Singpho shau, Naga chau, tyu, cha, sa, sang, ha, chi, Mon tsi, Lepcha zo, tha, Limbu che, Kiranti cho, Murm. chou, Gurung chad, Sunwar jau, Magar chau.

2. na-ngi Horpa (? ki Chin.), Lau kin eat, drink.

#### Drink.

1. h-thung Bh. w., thung s., thong Takpa, wa-thi Horpa, a-thi Thochu, nga-chho' Manyak.

chu-ma Taying Mishmi, thang-chu Mijhu (-chu assertive post.); Burm. sok, thauk, Abor tu-pu, tai-pu, Limbu thung-ne, Kiranti dung, Murmi thung, Newar ton, Gurung thunu, Sunwar tung, chu &c. *water*.

The root for *water* precedes another root in several dialects, Namsang jo-k (jo *water*), Joboka ti-ling (ti *water*), Muthun si-ngha, Tablung yang-ying (riang *water*), Tengsa tu-num (tu *water*), Angami zu-krat, M. A. dzu-kret (zu, dzu *water*).

2. *ta-mot* Gyarung.

*Sleep.*

1. nyan Bh. w., nye s., nyet Takpa, a-nan Thochu.

Naga ana-nu, Murmi ngung, Lau fam. non, nap, lap.

2. *gur-gyun* Horpa.

Miri yum.

3. *hor-man* Gyarung (Chin. fan, min).

Mijhu mui-chu.

3. *khai-ya* Manyak.

4. Naga jip, jup, ipi-silo &c., Limbu ip-se, Kir. im-sa, Sunwar ip.

*Come.*

1. hong Bh. w., hai Thochu, s-byon Bh. w. *ka-pun, pa-pun*, Gyarung. Sunwar pyu, Newar wa. Mijhu hoi-chu, Taying M. hona-na, Lau fam. ma.

2. syo Bh. s., Takpa.

Singpho sou.

3. kwi-lhen Horpa, le-mo Manyak, (Chinese le, lai, lam, Sokpa ire).

Burm. rok, yauk, la, Naga a-rung, a-ha-lu, Magar ra-ni, Kiranti ba-na, Lepcha di, Limbu phe-re.

*Go.*

1. song Bh. w., ta-shin, wa-shin Horpa, da-chin, ya-clin Gyarung (Ch. hu).

Burm. swa, Naga tsu, tong, Miri sa, Murmi sye go, Newar hon.

2. gro, gyu Bh. w., gyo Bh. s., (h-gro, gyo, move, walk).

Kiranti ka-ra, Sunwar lau.

3. da-kan Thochu (also move, walk), gai Takpa.

Burm. kwya, Naga kao, Limbu be-ge, Lau fam. ka. (a softening of ya-chin), yu Manyak.

4. ye-yen Gyarung.

5. bo-na Taying Mishmi, phai-chu Mijhu., pai, men Lau f.

NAMES OF INANIMATE NATURAL OBJECTS.

For *air, sky, day, sun, light* and *fire*, there are three principal roots in the Tibetan vocabularies, each occurring with all or most of these applications.

1st li, ni, ne, nyi, nye; lung, dung, rhot, ryu, zyu; lhak, da', nam, lang, nga.

2d ma, me, mi, mah, meh; mon, meun, mun; wuh, wot, hod, pho, uik, hwe, eu.

3d koh, khah.

The 1st and 2d of these roots are also applied, as we have seen, to *white, moon, star*.

	<i>Air.</i>	<i>Sky.</i>	<i>Sun.</i>	<i>Day.</i>	<i>Light.</i>
1 Bhotian	{ wr. <i>r-lung-ma</i> sp. <i>lhak-pa</i>	nam khah nam-	nyi- <i>ma</i> nyi- <i>ma</i>	nyin- <i>mo</i> nyi- <i>mo</i>	hod hwe
2 Horpa	<i>pu-ryu</i>	koh	nga	nye-le	spho
3 Thochu	<i>mo-zyu</i>	mah- <i>to</i>	mun	styak-lo	cú
4 Gyarung	<i>ta-li</i>	<i>tu-mon</i> <i>teu-meun</i>	<i>ki-ni</i>	nye	uik
5 Manyak	<i>mcr-da'</i>	mah	nyi- <i>ma</i>	nash- <i>chah</i>	wuh
6 Takpa	rhot	nam-dung	<i>p-lang</i>	nyen- <i>ti</i>	wot
	<i>Fire.</i>	<i>Moon.</i>	<i>Star.</i>	<i>White.</i>	
1 sa-meh	{ <i>z-la-va</i> me { <i>da-wa</i>	<i>s-kar-ma</i> kar- <i>ma</i>	<i>d-kar-po</i> kar- <i>po</i>		
2 u-mah	<i>s-lik-no</i>	<i>s-gre</i>	<i>phru phru</i>		
3 meh	<i>chha'</i>	<i>ghada</i>	<i>phyokh</i>		
4 ti-mi	<i>tsi-le, chi-le</i>	<i>tsi-ni</i>	<i>ka-prom</i>		
5 me, ma,	<i>lhe'</i>	<i>kra'</i>	<i>da-lu</i>		
6 meh	<i>le'</i>	<i>kar-ma</i>	<i>khe-ru</i>		

1. *The liquid root.**Air.*

The Gyarung *ta-li* is the Tibetan representative of the most common form in the Burman branch,—Toung-thu *ta-li*, Khyeng *lu-li*, Karen *kh-li*, Mru *ra-li*, Burman *le*, &c. It is also Aka *do-ri*. This slender form is Ugro-Turkish.

The Manyak *me-r-da'* is allied; 1st, to the Bhotian sp. *lhak-pa*, Murmi *lha-ba*, Kiranti *hak*; 2d, to the Naga *ra*, rang &c., Mishmi *arenga*, Gurung *nang-mro*, Milch. *lan*.

The *u* variety of Bhotian wr. *lung-ma*, Serpa *lung-bo*, is allied to the Takpa *rhot*, Horpa *pu-ryu*, Gurung *m-ro*, Thochu *mo-zyu*; the Takpa *rhot* to the Maram *nh-lut*.

A similar form of the slender variety occurs in the Changlo *ridi*, and Khoibu *nong-lit*. The *-t-*, *-d-*, is the *-k* of Bhotian, which Horpa preserves in *lik moon*.

The Lau. fam. has *lom*, *lon*, Mon *b-loei* (also *k-ya* = *k-la*).

*Sky.*

The Bhotian *nam sky* appears to be an archaic variety of the root. In the *u* form it is also archaic Scythic, nom, num, nob Samoiède, *na-ma*, nomen Ugr. (*lumen* Lat.), and, with other vowels, a widely spread name for *sun*, *god*, *prophet*, *king* &c., *nim*, *nem*, *neb*, *nab* &c. The Bhotian *nam* is found in Takpa, *nam-dung*, in combination with a *d* form of *lung*, *nung*. It is not found in any other non-Bhotian vocabulary save Kiranti *nam-cho*, and Kashmiri *nab*. Applied to *day* it also occurs in the Murmi *nam-sin*. As *sun* it is Limbu, Kiranti, and, in the contracted form *na*, Sunwar. Magar has *nam khan*, which is the Bhotian *nam kha*, *sky*. As *sun* the root is Hungarian *nap*, (*nai* Ost).

It is found in some names for *night*, in which it must have had the meaning *sky* (*sky-black*, *sky-dark*). Magar *nam-bik*, Lhopa *nam-mo*, Sulwar *na-do*, Lepcha and Jili *sa-nap*, Singpho *sa-na*.

The Takpa *dung* is found in the Naga *rang-tung*; in the original

form in the Tengsa *a-nung*, Manipuri *nung-thau*, in the Anam *tung-tien* (tien Chinese); and, with the slender vowel, in the Abor *ta-ling* (comp. Gyarung *ta-li air*), Khari *a-ning*. In the Manipuri dialects, the Takpa and Naga *dung*, *tung*, may be the parent of the *i* forms, *ting-puk*, *ting-em*, *ting-am*, *ting-aram*, *ka-zing*, *ka-zi-rang*, *ka-chi-rang*, but it is more probable that these are variations of the sibilant root. The Turkish and Mongol combine a similar form of the root, *teng*, *ten*, (immediately related to the Chinese, *tien*) with the Ugro-Turkish *ri air* &c. (*teng-ri* &c.).

The *a* form is still more widely diffused, *b-ra* Mishmi, *ram*, *rang* in the preceding Manipuri compounds and in others, *tang-ban*, *thang-wan*; *rang-tung* Naga, no *hlo-rang* Bodo, *ta-liang*, *sa-rag*, *sa-rangi* Nipal, *sa-range* Male.\* The Mon-Anam vocabularies have *p-leng* Chong, *b-loei* Anam (*air* in Mon).

The Bhotian variety has a very narrow range; and as the forms *dung*, *nung* &c. are found associated with *zing*, *zi*, *ling*, *rang* &c. the probability of similar *u*, *o*, forms having been current in the Sifan dialects as well as in the Bhotian, with the meaning *air*, is increased.

The Naga-Manipuri *rang*, *ram*, (with the *ta-*, *sa-* prefixes of that group) appears to have been carried along the Gangetic basin to the Bodos, Nipalese and Rajmahalis. It corresponds with the Bhotian *lhak air*, *la moon*.

The Tibetan liquid root for *white* *ru*, *lu* appears to be the same root. In the Gyarung *rom* it preserves an archaic *m* final, as in *nam*, *ram* &c. *sky*. The Lau lom *air* has both the *G*. vowel and final. Comp. also the southern forms for *white*, *lum*, *dum*, *lung*, *lun*, *long*, *rong*, *nung*, *lang*, *lug*, *lak*, *lih*, *ri*. The Bhotian *nam sky* must be considered as a variety of *rang*, *ram*, *nam*, *lhak* &c., *air*, *sky*, *white* &c., and not of the Chinese *lam blue* (*ante* p. 26). The Takpa *nam-dung sky*, is evidently the same as the Namsang *rang-tung*.

#### *Sun, Day.*

The same root is *sun* in Takpa *p-lang*, and Horpa has also the *a* form, *nga* (Anam *ngai day*). Bhotian and Manyak have the slender form *nyi-ma*, and it is also Gyarung *ki-ni* (Comp. *ta-li air*). With the meaning *day* this form is Bhotian, *nyi-mo*, *nyin-mo*, *nyi-m*, *ni-mo*, Horpa *nye-le*, Gyarung *nye*, Takpa *nye-n-ti*, N. Ultraindian, in all the groups,—*si-ni*, *ta-ni*, *tu-na*, *ti-ni*, *ka-ni*, *ni*, *ne* &c.,—Dhimal and Nipal. In the last it retains the original meaning of *sun* also, Murmi *di-ni*, *sun*, *day*, Gurung *dhi-ni*, *sun*, *di-ni*, *day*. This form is referable to the Naga *ti-ni*. The Ultraindian sibilant variation current in Singpho, *si-ni*, may be the original of the Kambojan *ti-ngei* (also *ta-ngai*). Anam has *ngai day* from which it may be inferred that in the Kambojan, Chong and Ka *ta-ngai*, the root is *ngai*; comp. the Horpa *nga sun*.

The Takpa *nyen-ti day* appears to be related to the Bhot. *nyin*, Horpa *nye-le* on one side, and to the Limbu *len-dih*, Kiranti *len* on the other. Abor has *longe* and Manipuri *ka-lhan*, *lan-la*. Kapwi *ri-mik* (*day eye*).

The Kambojan *tingei*, *tangai*, (also Ka, Chong), Mon mun *tata-ngwe*, Koreng *ting-nai mik* (*day's eye*), Luhuppa *tsing-mik* (*ib.*), Tangkal, Naga, *ting-lu*, *sun*, resemble some of the preceding forms for *sky* and *day*.

\* In some dialects *rang* is very much used. Namsang has *rang-tung sky*, (Muthun *rang-han sun*), *rang-vo light*, *rang-nyak darkness*, *rang-yi day*, *rang-pan night*, *ka-tha-k-rang god* (*rang-ding Muthun*), *rang-mok thunder*, (Muthun *rang-bin air*), *rang-fom cloud*.

*Light.*

In the Tibetan vocabularies the root occurs rarely with the meaning *light*. In Lhopa nam becomes dam with this meaning, the Changlo dialect preserving ngam. Serpa has the slender form rhip, Magar rap, Gurung *bh-la*, Kiranti *u-la-wa cha-mi*. The Lepcha aom, is probably a contraction of ngam. The Aka hang, Sunwar hango, Chepang angha appears to be a variation of the sibilant form, sang, shang &c. Naga has rangai, rang-ro, Burman lang, len (*day* in Limbu and Kiranti), Garo *k-lang*, Bodo sh-rang, chu-rang. Lau has leng, Anam den, rang-sang, Kambojan *p-lo* (comp. *m-ro* of the Gurung nang *mro sky*, Horpa *pu-ryu*; also *jim-p-ro white Goud.*).

Lepcha *a-chur light*, Limbu thoru, is a form similar to the Bhotian *hur wind*, and Mongolian *a-hur, a-chur, uir air*; but it may be *a-chu-r*, (=chu-rang Bodo), tho-ru.

The Chinese word for *day* may be the same root ngit Cheo-hu; jit, ji', git, get, yat in other dialects,—*sun* ngit thioe, jit thau, yat tau, (*day's head*). Gyami has re-thou (re for ne, ni) *sun*, re-yai *light*. Anam has for *sun* nhit, ngat, nhut Chin.

*Fire.*

The Chinese and Tibeto-Burman root for *fire* is the labial (see 2). But some of the Tibeto-Burman forms of the *l* root are found in Mon-Anam vocabularies for *fire*,—*pi-lung, p-lung* Kambojan, *p-leu* Chong, lia, lua Anam, ding Kasia. The antiquity of these vocables is attested by the root occurring in the group with other meanings, *p-leng sky* Chong, *b-loei sky* Anam, *air* Mon; *p-lo light* Kambojan; lum, loin *air* Lau. The Kambojan form lung is the Bhotian lung *air*; Takpa dung, Naga nung, tung, Anam tung, *sky*.

*Moon.*

The prevalent Tibetan name is the liquid root,—the vowel broad in Bhot. and slender in the other dialects. See *White* p. 29. The variations are similar to those which the root has with other meanings. Thus the Bhot. *z-la-wa moon* is similar to the *a* form for *sky sa-rag* &c., the *-k* being preserved in Horpa *s-lik, moon*, Bhot. lhak *air*, although lost in la, *da moon*.

The Bhot. *a* form is found in Anam. The Lau fam. has the *u* form, common in *white, air, sky, fire* &c.

In the south the broad Bhot. form is common. Aka *pa-la*, Mru *pu-la*, Mijhu lai, Maram lha, Khoibu, Maring. tang-la, Burn., Karen, Kami la, Newar mi-la, Sunwar la to si, Chepang la-me, Lepcha la-ve, Limbu la-va, Kiranti la di-ma, Murmi lha-ni, Changlo la-ni, Lhopa dau, Gurung lau ngi, Khyeng kh-lau.

The *u, o*, form is found in Abor *po-lo, pa-lo*, Dophla *po-lo*, T. Mishmi *ha-lua, lho*, Koreng *cha-rhu*, Toung-thu lu, Kami lho; Lau fam. leun, lun Khamti, deun Laos, duen, duen nung Siam, den Ahom.

The slender form of Gyarung, Manyak and Takpa is found in Mithun let-nu, Garo rang ret, Tablung le, Khari le-ta, Dhimal ta-li, Changlo la-ni, Ksrant la di-ma, Murmi lha-ni.

*Star.*

The forms for *star* are similar to those for *white*.

2. *The Sibilant Root.**Air.*

The Thochu *mo-zyu air* appears to be merely a variation of the common Tibetan liquid root, which has the similar form *ryu* in Manyak, the change from the liquid to the sibilant occurring with other roots (see *Numerals* 4). The same phonetic change connects many of the Southern words in *s* with those in *l*, *r*, *ɖ*, *t*. But some of them appear to be connected with the Chinese sibilant root used for *star*. For *air* words resembling the Thochu occur in Taying M. *zhung*, the Manipuri and Nipal groups—M. *ma-su*, *ma-si*, *ma-r-th* (comp. *me-r-dah* Many.)—N. *nam-su*, *pha-se*, *sha-mi*, *sa-mi-t*, *sag-ma-t* &c. (comp. *lhak*, *hak*). It is found also in Milch. *hash* (Abor *asar*).

The Lepcha *sag-ma-t* (*day sak-ni*, *sun sa-chak*) appears to be also found in Limbu *tam-sak-pa sky*, an archaic sibilant form allied to the Limbu *sa-mi-t*. The Kiranti *hak* appears to be referable to the old Bhot. *lhak-pa*, and not to a sibilant variety. The antiquity of forms like *sak* is shown by the Turkish *sok-ba* (Yenis-Turk.). Comp. also Turk. *syod light*, or *fire*, with Bhotian *hod*, Limbu *ot*, Takpa *wot*, *light*.

*Moon.*

The Thochu *chha' moon*, appears to be an archaic form allied to *sak*. Tho Gyar. *tsi*, *chi*, of *tsi-le*, *chi-le*, is probably a slender variety. Manyak has the broad form in *nash-chah day*, *sun*. In the south the Thochu form and application are found in Manipuri, Kapwi *tha*, Singpho, *Jili si-ta*, Nogaung *yi-ta*, Khari *le-ta*, Tengsa *lu-ta*, Nams. *da*, Dhim. *ta-li*, *Sak that-ta*,<sup>25</sup> S. Tang-khul *a-kha*, Kamb. *ke*, Ka *kot*, Chong kang, Luhuppa *ka-chang*, N. and C. Tangkhul *ka-cheang*, Khoibu and Maring *tang-la*. Champhung has *a-su-bi* (Nicob. *ti-so-ab white*); Mon *ha-tu* (*chu white*), *ha-tok*; Anam *tho bak*.

The Abor variety with the liquid final, *a-sar*, is Scythic in form. Comp. *a-sar*, *a-chur*, *light*, (*supra*.) But it may be *a-sa-r* (= *sa-ra*).

The same root occurs, in several of its varieties, in the words for *sky*, *sun*, *day*, *light* and *fire*.

*Sun, Day.*

The Singpho, *Jili*, *Naga*, *Garo*, *Deoria Chutia* and *Bodo tsan*, *shan*, *san* &c. *sun*, is similar to *sha*, *sag* &c. As *day* it is *Naga*, *Manipuri*, *Burman*, *Garo*, *Bodo* and *Kol*, *Nipal* and *Tiberkhad* (*a-sanga*, *tsing*, *tshan*, *sun* &c.). The *Naga tsing* is reproduced in the *Kol sing*, *Magar sin*. For *day* the *Manipuri gr.* has *nga-sin-lung*, *nga-sun*, *a-sun*, *ma-sung*, *ma-sutun*, *tam-lai*; *Anam song*, *mang song*; *thi*.

The sibilant and slender form of *Naga* used for *sun*, *day*, current in *Kol* and *Magar* as *day*, is also, with a postfix, applied to *fire* in *Kol* and *Gond*, *singi-l*, *senge-l*, *singu-l* (comp. *ting-lu sun Naga*.)

The root occurs in similar forms as *white* and *moon* (p. 19).

It is probable that some of these forms are Dravirian. Comp. *white te-lla* *Telugu* (*ua-lla black*); *light mar-sal*, *ma-skol* *Kol*, (*mar*, *ma*, *man*, *min* &c. *sky*), *bhok-sha Tuluva*; *sky sir-ma* *Kol*; *fire tu Tuluva*, *azha-l* *Tamil*, *thi*, *ti-ya Malayalam*, *chi-k* *Uraon*, *chi-che* *Malé*, *singi-l*, *senge-l* *Kol*; *moon tinga-l*, *Tamil*, *Mal.*, *tinga-lu Karn.*, *Tulu.*; *sun singi*, *sing mar-sal* *Kol*; *day sing*, *sugi* *Kol*; *star chukka* *Karnataka*, *chukka* *Telugu*, *suku* *Gond*.

\* Anam *that tha clear* &c.

The sibilant root is also current for *white* in several of the Ultraindo-Gangetic dialects.

### 3. The Labial Root.

#### *Sky.*

The labial root is *sky* in Thochu mah-to, Manyak mah, and Gyarung tu-mon, teu-neun. This vocable distinguishes the Sifan dialects from Bhotian which has nam. Miri has *do-mur*, (Gyarung in pref. and root), Singpho, Mru, Murmi mu, Burman, Tougthun no, Burm. wr. mogh, Nogaung ma-bat, Tengsa phum-ching, Gurung mun. Manipuri has thang-wan, tang-ban, Lungke wan and Lau fa.

#### *Light.*

As *light* it is Horpa s-pho, Manyak wuh, Bhotian hod, hwe, eu, Thochu uik, Takpa wot, Naga oitike, Luhuppa hor, Limbu ot. The Manipuri wan, ban, ben, war, Karen k-pa, Lau sa-wang, Anam mang song, Mon ku-ma, do not resemble these forms but some of the preceding ones for *sky*. As they are found in Dravirian as *light*, val-chom, bela-ku, a-veli, bili &c. (Kol mar-sa, mar-sal) and *sky*, ban, van, banu &c., these forms and the similar Gangetic vocable for *sun*, beli Asam, bela Dhiinal, ber Male, and *moon* nokha bir Bodo, appear to be archaic Draviro-Ultraindian and not Tibeto-Ultraindian. They are Indonesian,—banua Nias, awan Sasak, Sabimba, wang Madura &c.

The forms wot, ot are *fire* in Turkish, *air*, *wind* in Ugrian ot, wot, (in Sanskrit at-ma, Armenian ot &c).

#### *Sun.*

As *sun* it is Thochu mun, (Gyar. mon, Gurung mun *sky*), Sak sa-mi, (sa-meh *fire* Manyak), Naga wang-hi, Anam vang hong, and Lau wan, ban,—the Manipuri forms for *light* and *sky*.

#### *Air.*

As *air* it is Singpho nbong, Naga pong, ma-pung, ma-bung, mong, Newar phai and Sunwar pha-se.

#### *Fire.*

In Chinese the broad form is *wind*, *air*, fung, hong &c., Gyami sphun.

The Chino-Tibetan word for *fire* is a variety of the same root. Thochu, Takpa meh, Manyak sa-meh, Gyarung ti-mi, Horpa u-mah, (mah *sky* Thochu, Manyak), Bhot. me, Abor, Burman, Naga, Manipuri, and Nipal groups mi, me, Aka u-ma, (Horpa). Manipuri, Kumi mai, Lau fai. Bodo wat, Mon ka-miot, ka-met, ta-mot, ta-mat, (Thochu mah-to *sky*. Chinese ho, fo, fua, hue or hwe, we. The Mon mot, Bodo wat, have the Turkish form, as in the Takpa wot *light*.

The root is also an archaic Scythic vocable for *fire*, *abe*, *apoh*, *ambe* Aino, fi Japan, bi Fin &c.

Some of the more archaic forms of the labial in the preceding applications, as wot, mot, resemble the Tibeto-Ultraindian labial root for *white*, phok, phuk, phut &c.

The Chino-Himalaic labial root is found in both the Chinese and Himalaic forms in Dravirian,—*day* paga-lu Telugu, Karn., paga-l Tamil,, Malayalam, pagi-l Tuluva, poga-l Kurgi, pokha-l Toda; *sun* paka-l-on Tamil; *light* bokh-sha, Tuluva; *sky* mugi-lu Karn. anc. The antiquity of

this form and its application to the *sun*, *day* &c., are shown by the Yukahiri *sun* bug-on-she, Caucasian *sun* bok, buk, baak, *day* bigula, ba; Malagasy *sky* ha-baka-baka, Galla *sky* waka, wak, *god* wak-wak.

#### 4. The Guttural Root.

The only examples of the root in the Tibetan vocabularies are the Bhotian khah, Horpa koh *sky*, which is Turkish kuk, gok. It may be connected with the Bodo no-kho-rang (no kha-bir *moon*, Angami kharr *moon*) Kambojan kor, Mon kya; Chinese *light*, kong, kuang &c.; Angami Naga ti-khra, ti-khe, Anam khi *air*, An. ki *day*, and with the Lau guttural root for *white* khau, khoung.

#### Affinities of each dialect.

##### 1. Bhotian.

The form lung, *air*, has the vowel of Horpa, Thochu and Takpa; and the same form is found in the Takpa dung, Naga nung *sky*, Kambojan lung *fire*, p-lo *light* &c.

The form lhak, *air*, is allied to the Manyak da'. Similar forms are preserved applied to the *moon* lik, le', da, la &c. The Naga-Gangetic rag, rang, ra &c., *air*, are referable to this form of the Tibetan root. They appear to have been very early diffused, and indicate a distinct transmission of the root from that of the modern Bhotian. The Bhotian is found in its proper form in a few of the Nipal languages only.

The Bhotian nam, *sky*, is also an archaic form. It is only found in Takpa, and in the south also it has a very narrow range. But the common southern rang is the same root in another form.

Khah, *sky*, Horpa koh, has a still narrower range.

Nyi, *sun*, is also Gyarung and Manyak,—Horpa and Takpa preserving the broad form, nga, lang. It is common in all the southern groups, but the prefixes show that the southern terms were chiefly derived from Sifan.

The forms of the labial root in its application to *fire* occur in the other Tibetan vocabularies also.

##### 2. Horpa.

The Horpa pu-ryu, *air*, is connected with the Thochu and Takpa forms.

Koh, *sky*, has Bhotian, Mon-Anam and Chinese affinities.

Nga, *sun*, has also Mon-Anam representatives (ngai).

Nye-le, *day*, is Gyarung, Takpa and Burman.

Spho, *light*, is remotely connected with the Lau sa-wang, Burman *mo sky*.

U-mah, *fire*, is also Aka.

Like the Thochu and Manyak these vocables show archaic affinities both with the Burma-Gangetic and the Mon-Anam glossaries.

##### 3. Thochu.

The Thochu mo-zyu, *air*, is Manipuri and Nipal.

Mah-to *sky* has the same affinities as the Manyak mah, that is it is Mon-Anam rather than Burma-Gangetic.

Mun, *sun*, is directly connected with the Gyarung mon, meun, *sky*, and, through it, with the similar Ultraindo-Gangetic terms.

Styaklo, *day* is peculiar.

K is Kalombojan and Angami Naga.



*Uik, light*, is an archaic broad form not found in other dialects., but differing little from the Manyak form.

*Meh, fire*, is the common Tibetan form.

This dialect appears from some of these words to be archaic and peculiar like Manyak with which it has some special affinities, and this accords with our previous inferences.

#### 4. Gyarung.

The Gyarung *ta-li, air*, distinguished from all the other Tibetan forms, is distinctive of the Burraan group in Ultraindia.

*Tu-raon, tu-meun, sky*, (mun sun, Horpa), is Abor, Burmanic, Murnai and Gurung.

*Ki-ni sun*, is Yuma (*ka-ni*) and—with variations of the prefix, such as occur in Gyarung,—common in Ultraindia, some Ultraindian forms being also Nipal.

*Nye, day* is Burman, *ne*.

*Ti-mi fire* has the common Ultraindo-Gangetic form of the root.

The Gyarung forms are connected with the Ultraindo-Gangetic generally; but they have a close and decided agreement with those of the Burman branch of Ultraindian.

#### 5. Manyak.

*Me-r-da', air*, appears to be connected with the Naga forms. The labial prefix is a common Naga-Manipuri one, and the compound with *r* also occurs—*ma-r-thi air* Maring. The root *da'* resembles primarily the Bhotian *lhak*, and secondarily the Naga, Manipuri *rang* &c., of *rang-che phan-re, thi-rang, khi-rang* &c.

*Ma, sky* (Thochu *mah-to*) is a link between the Sifan *u* form and the Lau, Lungko, Manipuri and Dravirian *a* forms, *ban, wan* &c. Taken with the similar forms for *light* it indicates an archaic connection between the Sifan and Mon-Anam vocabularies, and between the latter and the Dravirian, but no spread of the Manyak form specially.

*Nyi-ma, sun*, is Bhotian.

*Nash-chali, day*, appears to be an archaic broad form of the root, as in Jili, Changlo and Sunwar.

*Wu', light*, has no close southern affinity.

*Su-me'* has the Thochu and Takpa form of the root.

The Manyak forms appear, on the whole, to be archaic, and not closely connected with those of any of the Ultraindo-Gangetic dialects.

#### 6. Takpa.

The Takpa *rhut, air*, is found in Maram *n-hlat*.

The dung of *nam-dung, sky*, is Naga, *rang-tung*, and Anam *tung-tæu* (a similar compound).

*P-lang sun* occurs as *day* in Maram *lan-la*, Naga *rang*; as *light* in Naga *rang* Burman *lang* &c.; and as *sky* in Chong *p-leng*.

*Nyen-ti, day*, has no special southern affinity, save with Limbu and Kiranti.

*Wot, light*, is Naga and Limbu.

*Meh, fire*, is the common Tibeto-Burman form.

These words show a close agreement with Naga-Manipuri.

#### Night.

The Tibetan names and their southern forms (*night, black, blue, green*,

red) have already been given. 1 tshan, sha, shen, sen; sang, sing, ching, zying, hing, cha &c.; 2 spha or s-pha; 3 di, ti, zi; 4 mor, mon, walo, mula &c., or mo-r, mo-n, wa-lo, mu-la &c.; 5 kwa-ka', kha-khe, ko-koi, ku-k, ko-k.

Other names are also found in the south.

6. kamo Abor, kham Siam.

7. nak, mak, nyak, nya, ya, nyin &c., *black*, sep; or as a qualitative with the word for *sky*, or *air*.

8. bik Magar in nam-bik (p. 27).

9. ma-kung Kumi, kung-keng Burm. This is Chinese, kung chung K-h., hung chung K-t.

*Obs.* Two broad forms of the liquid root appear to have existed in the archaic Himalaic vocabulary, distinguished by the final consonant, the first having -k variable to -ng and t, and the second -m. That the m form was not merely a local variation of ng is rendered probable by the Scythic examples on the one side and the Lau on the other. But the -m like the -k form has produced -ng, -n forms.

A. The -k, (-t) and derivative -ng, -n forms are chiefly applied in the Tibetan vocabularies to *air* and *moon*. The two meanings appear to have been originally distinguished by the prefixes, but the variations in the form of the root are now sufficient to make it a distinct word in each of its uses, and even in most of the vocabularies.

The archaic forms appear to have been lhak, lhuk, lhug, [Dopla has lug in *white*]. Their antiquity is shown by their prevalence in the Scytho-Iranian glossary as *air*, *sky*, *light*, *day* &c. (e. g. a-rak Turk., (*light*) light, light, lux, leukos, lag, lug, lok &c. &c.) The u, o, form is still retained in 4 out of 7 Tibetan dialects for *air*, (Takpa has it also in *sky* and it is the most common vowel in *white*). If a variation of the liquid to the sibilant takes place in Thochu it may also be found in the south, where the archaic Tibetan form for *air* may be partly represented by the s, z forms. The Taying zying, N. Tangkhul su, Naga yak (=sak), Nipal ro, su, sag, so, Milch. hash, Abor sar may thus be remnants of the primary Tibetan current. To it are undoubtedly referable the Mishmi, Abor, Koreng, Tounge-tu, Kumi and Lau forms for *moon* lho, rhu, lo, lu, lun, lua, duen &c., and the more common lha, la, lau. The fina k preserved in Horpa is not found in any of the southern forms, and, on the other hand, there is now no example of the u, o, form with this application in Tibet.

In Tibet Takpa has the only example of this form applied to *sky*, but it is common in the south, in various forms similar to the Tibeto-Ultraiidian used for *air*, and generally referable to the same primary current with it. These forms are probably contemporaneous with the Bhotian nam.

The root does not occur as *fire* in the Tibeto-Ultraiidian vocabularies, although the labial root is used for *light*, *fire*, *sky* and *sun*. But some of Mon-Anam vocabularies have it with this meaning and in the archaic u form. The Anam lua *fire* is identical with the Taying Mishmi lua of *ha-lua moon*, to which the Siamese luen *moon* is allied. The Kambojan *pi-lung fire*, resembles the Lau lun, nung, Abor *po-lo moon*, and the archaic Tibeto-Ultr. *pu-ryu*, lung, nong &c. *air*, *sky*. This is one of these applications of the common Himalaic roots by which the Mon-Anam branch asserts its archaic separation from the Tibeto-Ultraiidian.

The slender forms of the liquid root belong chiefly to the later Sifan

current to the south. The *t*-, *k*- prefixes show that one of its principal sources was Gyarung. These forms are not numerous, and they are chiefly found in the emasculated Irawady group, the connection of which with Gyarung in its late form is distinctly marked by such vocables. Abor and Aka have similar forms, as in many other instances.†

B. The archaic -*m* form of Bhotian, *nam sky*, which has been communicated to Takpa, is the only Tibetan example of the preservation of this variety of the liquid root for *white*, *p*-rom Gyarung, to the *sky* &c., although the Takpa *lang sun*, and the southern *ram*, *rang* &c. may be variations of it and not of *lhak*. The Lau lom, *air*, has the archaic form, as in the *white* of Gyarung, Kumi, Kami and Lepcha. The Bhotian form is found in the Nipal dialects as *sky* and *light*, *nam*, *nap*, *rap*, *rhip*.

2. The forms *nga*, (*nash*) *nyi*, *nyin*, *nye* applied to the *sun* and *day* in most of the Tibeto-Ultrindian vocabularies are evidently archaic. The root appears to be distinct from that which we have been considering, and to be allied to the Chinese.

Horpa has the only Tibetan example of the broad form, *nga sun* (unless the Manyak *nash-chah* be *na-schah*). The older southern current preserves an example in Anam ngai, Kambojan group *ta-ngai*.

The most common Ultrindian form for *sun*—which has spread to the Nipal group—appears from the prefix to be Gyarung.

3. The sibilant root presents difficulties from its interchange with the liquid. In Tibet it is not current as *white*, and the only undoubted examples in the present series are the broad form *chhak moon* Thochu, *chah* in *day* Manyak, and the slender *tsi*, *chi* Gyarung in *moon*, *star*.

In the south the root is still current with the primary meaning *white*. Naga *cha*, *che*; sang, song, sing, heng; *thoh*; Tiberkhad chong, Mon chu, Nic. so; Anam se, sach, (*clear* sang, thanh, tho, that tha). *Light* Singpho *thoi*, Jili *thwe*, N. and C. Tangkhul *she*, *shea*.

The connection between some of these forms and those used in names for *day* &c. is unequivocal, e. g. *day* M. Angami *ti-so*, (*sky-white*, *night ti-zi sky-blash*) Khari *a-songa*; *white* Nogaung *ta-ma-song*. Anam *clear* sang, *light* su sang, su song, *fire* su sang, sang lang, (*lang clear*, *t-rang*, *t-rong white*), *day* song, mang song *sky-white* (also *light*), *sun* vang hong (=mang song). Joboka *white* che (=se Anam); *air* rang-che, Mijhu song-la *day*, *light*, (Anam song), Taying sona *light*. In *sun* of Naga rang-han, san, wang-he, wang-hi, su-hih, Garo ra-san, san (also *day*), Boḍo shyan, Mrung *day* tea-lo, (*hur-ro night*), M. Kumi *day* a-hong-nat, Lungke *day* sun. In several of these forms the primary qualitative meaning of *white*, *bright*, *light*, (*sky-white* or *bright* &c.) is still obvious.

From the rarity of the sibilant element in the Tibetan names—its absence with the primary meaning *white*,—its preservation with that meaning in Dravirian—and the resemblance of the Ultrindo-Gangetic to the Dravirian forms—it seems most probable that the former are Dravirian and not Tibetan. The same difficulty meets us with the labial root, which is both Tibetan and Dravirian. In both cases too, archaic Himalaic forms similar to the Dravirian are preserved by Thochu, which in these, as in many other roots, separates itself from the other Tibetan dialects, and

† In names for *star* some slender forms occur *hi-rek* Mru, *me-rik* Namsang, *le-thi* Muthun, *le-tsi* Joboka &c. (*le*, *le-t-lu*, *le-ta*, *moon*, comp. *tsi-le moon-Gyar.*)

connects itself with the Mon-Anam and Dravirian. Its mah *sky* (also Manyak), styak-lo *day*, chha' *moon*, ghada *star* and phyokh *white* are peculiar, and both phyokh and chha' are Mon-Anam \* and Dravirian. It is possible that *zyu air* Thochu is a radical sibilant and not a variation of the liquid of the other dialects. The Thochu sibilant series may be chha' *moon*, styak-lo *day*, *zyu air*, all based on an archaic sibilant for *white* similar to the Dravido-Ultrindian. Styak resembles the Naga sak, sag, the independence of which from the Tibetan liquid lhak (p. 38) is further supported by the Anam sach. The Anam se, sang, sach, that, tot, su, thanh, thi &c. may be compared with the Drav. te, thi, ti, chi, sha, chha, za, tu &c.

In many of the Ultrindo-Gangetic vocabularies both Dravirian and Tibetan ingredients are found in the same or in closely allied names. Thus in the Garo lam-par *av*, lam is Tibetan and par Drav. Naga has the Tibetan ngi, nyi &c. in *day*, and the Dravido-Anam san, han, hi, su &c. in *sun*. Namsang has the Tibetan rang for *sky* in its compounds, where Mulung has the Dravido-Ultr. wang, vang &c.

4. The labial root is evidently one of the most archaic of the formation in its use for *white*, *light*, *fire*, *sky*, *sun*. The radical vowel appears to have been u, o, and the final cons. k, as in the Thochu *white*.

The Gyarung variation mon *sky* (Thochu mun *sun*) is the form to which several of the southern ones are referable (Abor, Singpho-Burm., Gurung &c.), and the Singpho-Naga pung, mong &c. *air* is the same variety. Lau, Anam and Bodo prescribe a final t in *fire* (mot *fire* An. = mogh *sky* Burm.).

The forms lan, wan, beli, ber, bir, *sky*, *light*, *sun*, *moon*, appear to be Dravirian. They are chiefly found in the older southern vocbs. Lau, Anam, Mon, Manipuri; Bodo, Dhimal, Male, Asam. The Lau and Anam have close affinities with the Manipuri and Yuma vocbs. (*sky*, *light*, *fire*).

In addition to the forms given above, Pallegois' Siamese Dict. supplies vela *day* identical with the Dhimal bela *sun*, Drav. bela *light*.

The Drav. broad form for *sky* van-am, man-am, ban, banu &c. (van-min *star*) pon-e, [also vin, min; *fire* ben-ki &c. &c.] is very common in those Ultrindo-Gangetic vocabularies in which Dravirian and archaic Tibetan vocables are found most abundantly. Anam has mang song *day*, *light*, vang hong *sun*, in which the sibilant is *white*, clear, bright &c., and mang, vang, was probably *sky* or *air* primarily. The Lau fam. has sa-wang *light*; fa, fa-fon, *sky*; fai *fire*; † ban, wan, ta-wan, kang-wan *sun*; ban, wan *day*. In the Manipuri group we find *air* phan-ra Charaph.; *fire*, mai general (Lau fai); *light* ban, ben, war; *sky* tang-ban, Kapwi, thang-wan Khoibu. In Singpho we have *fire*, wan, Jili ta-wan, (Lau *sun*); in Mijhu Mishmi *fire* mai (Manipurian, Lau; in M. M. ai is a comm. final). In the Naga group Mulung and Tablung have generally wang where Namsang, Muthun and Joboka have the Tibetan rang, —sun wang-hi, wang he, (*sky*, *white*), night vang-mak, vang-niak, (*sky*, *black*), god kah-wang, lightning wang-lip, thunder wang-khung, *air* wang-wang, cloud wang. Garo has wal, ver *fire* (war *light* Manipuri gr.), lam-par *air* (Dhimal bhir-ma, biri-ma the slender Drav. form); Kumi ku-wang *light*, Khyeng a-wa *light*, Lungke *sky* wan, wyn.

\* The Anam phuck *white* was omitted in p. 29. It is distinct from the modern bak, of Chinese derivation.

† A com. Scythic form, pai, wai, &c.

5. Some of the guttural vocables appear to be the contracted forms of the liquid root with the guttural prefix common as *white* and *star*, *ka-r*, *g-re*, *k-ra'* Tibetan. Khyeng has *khro moon*, i. e. *kh-ro*. The Angami term may be *kha-r*, Kambujan *ko-r*, Mon and Kyau *k-ya* (for *k-ra*, comp. *k-re*, *k-ye star*). Angami *kh-ra air*. Gurung has *pi-ra star*\*, (*bh-la light*, *m-ro air*, *ta-r-kyu white*).

The southern guttural roots may be merely variations of the dental, Comp. Anam thi, *ki day*, *khi air*. These forms and the allied *ting*, *ti* of Ultraiidian are Scytho-Chinese and not Bhotian in their affinities. Ch. tin, tien, tsang tien &c. *sky*; *ti ki*, *hi* &c. *air*.

6. It is probable that the several applications of the same root were archaically distinguished to some extent by descriptive words added. In Tibet there are very few such double words. Bhotian and Takpa have compounds for *sky*, Thochu and Manyak for *day*, and Gyarung for *moon*. In the south they are very common. In many cases they are merely two synonyms, but in some one of the words is descriptive. *Day* is frequently merely *sun*; but *sun* is *eye of the sky* or *day*. Anam has *mat t-roi sun*, (*t-roi sky*, *t-ru day*, *mat eye*); *mat nhut sun*, (*nhut day*); *mat t-rang moon*, (*t-rang white*); *tho bak moon* (*su song light*, *song day*, *sang clear*, *tot clear*, *se white*; *thog white* Milch., *su Nic.* &c.; *bak white*). The Manipuri group has several examples of names for the *sun* similar to *mat t-roi*, e. g. *ri-mik*, *tsing-mik*. Mijhu Mishani has *le-mik*. Tayiag M. has *ring nging* (*ning sky*, *riuga Mijhu face*). In the ta-n'gai of the Kambojan group *ta* is perhaps *eye* and not a mere det. pref. The Chinese *jit thau* &c. is *head of day* (*day head*).

7. The Himalaic vocables that have been communicated to the Vindyan branch of Dravidian are the Mule *sa-range sky* (Nipal *sa-rangi*), and *jim-pro*, or *jim-ra white*, and the Kol *hoiyo*, *hoyo air* (Anam *hoi*, *hoi gio*, unless the Anam name be of Kol derivation).

#### External Relations.

1. The Himalaic liquid root used for *white*, *air*, *sky*, *moon*, *star*, is also an important one in this class of names in the Scythic, Indo-European and Caucasian families. It is also found in Dravidian in Scythic forms. Some full and broad forms are preserved more largely in Himalaic and Indo-European than in Scythic, owing probably to the assimilative and slender phonology having made less progress in some of the dialects of the former than in most of the latter.

2. The Himalaic labial root has several distinct forms, 1 *phyok*, *phuok*, *mogh*, *wot*, *mot* &c.,—2 *mun*, *mon*, *mur* &c.,—3 *me*, *mi* &c. Each of these has a wide and archaic range of external affinities, Chinese, Scythic, Caucasian, Indo-European, African. All are found in the Scythic glossary in forms similar to the Himalaic, e. g. *fire bok* Yeniseian, † *wot* Turkish, *a-be* Aino, *bi* Ugrian, Japan; *sun bug-on-she* Yukuhiri; *m-rang* an-bok, on-bok-sy Yeniseian, *sa-bag* Turkish; *air*, *wind wot* Ugr.; *white bag-da-rin*, *wag-da-rin* Tungusian. Caucasian has *bok*, *buk sun*, *but*, *bot-so*, *moot-z*, *me-z* &c. *moon*, *mu-ch sky*, *air* †. These forms from their distribution and rarity must belong to the most archaic era of the Scythic glossaries. The prevalent forms of the labial are similar to 2 and 3 of the Himalaic,

\* But it may be Drav. *pira* (=i-nil Kol).

† Europ. *tok*, *foga*, *fo a-fa* &c. (? Lat. *roc-us*).

‡ *Vapour* Turk. *bugu*, *bug*, Armen. *bug*, Tamil *bug-ei*.

and they are rare in comparison with the dental, sibilant and guttural roots. The pure labial for *fire*, mo, me, mi, be, bi &c. is not a late variation of mok, bok &c., but an archaically distinct and very widely distributed variety. The Himalaic forms phuok, mogh &c. are immediately connected with the archaic and nearly obsolete Scythic bug, bok; and the u of mun &c. shows that it is probably a local softening of forms like muk, and not a modern derivative from the prevalent Scythic forms of the labial which have a,—bar, wal, mar &c. The Sokpa wun-dur *day* combines a Tibetan with a Mongolian name. The more archaic labio-guttural forms are now found, not in, but around, the central Scythic province, marking the older migrations. In the north they are found in Yukahiri and Yeniseian, in the south in the Himalaic glossary, in the west in Caucasian, Indo-European and African.

3. The Dravido-Ultrindian forms of the labial root, ban, van, wan, mar, bar, val, pal, ber, pel, vel, vil, &c. &c. are connected with the prevalent Scythic and Caucasian forms. The Arian and North Indian vocabularies have similar forms, and the directly western and non-Tibetan relationship of the Dravido-Ultrindian and Dravido-Australian group of forms and applications is as fully evidenced as any archaic glossarial induction can be.

Caucasian, *moon* bar-s, ber-s, ba-z, mi-s, me-se, Georgian *m-t-ware*, *t-wa-i*, Ossetic *ma-i*; *sun* bar-ch, bar-ke, mal-ch, marra, beri, Georgian *mitli*, *mish-si*, *mik*. The application of the labio-liquid root to *moon* is one of those numerous glossarial links between Dravirian and Caucasian (and even Caucaso-Semitic and African &c.) which, with its non-Tibetan ideologic and phonetic traits, indicate that its course from the Scythic province to India was across the Indus and not across the Himalayas. Dravirian has *pir-ei*, *za-billi*, *bil-pe* *moon*, identical with the native root for *white*, *light*, *bil*, *vel*, *pel*, *bal*, *bol*, and different from all the Chinese, Tibeto-Ultrindian and Scythic names for *moon*. The western affinities of the labial name are also illustrated by the Indo-European *mona*, *man-k*, *mond*, *maan*, *moon* &c., African *vola-na*, *bera* &c.

Scythic: *air*, *wind*, Ugr. *war-ma*, *bar-s-ka*, *mar-d-em*, *mer-d-ish*, *mer-z*, *wire*, *Sam*, *bil*, *mer-ga*, *mar-k*, *mer-se*, *bar-shi*, Korean *par-am*, *par-an*, *Yenis*, *pai*, *poi*, *boi*, *pei* (Ostiak *woi*; *Fin*, *duy* *poi-wa*, *pei-wu* &c., *sun* *poi-wa*, *pei-we* &c.); *sun* *Fin* *wal-ky*; *fire* *Fin* *wal-kaa*, *Koriak* *myl*, *mil-ke-mil*, *mil-gan*, *mil-gu-pil* &c.; *white* *Fin* *wal-gi*, *bal-gie*, *wel-kes* &c., Ugr. *wai-gum*, *wai-kun* &c. Here we find the root with its original meaning *white* preserved in *Fin* and *Ugrian* as in *Dravirian*, although lost in most of the other families, and the special archaic connection between *Ugrian*, *Caucasian* and *Dravirian* illustrated. The Indo-European *weiss*, *wit*, *white* &c. is probably a variety of the same form, *r* passing into *s*, *t*, in the Scytho-Iranian phonology. The Scytho-Caucasic *bar-s* *wind* Ugr., *moon*, *sun* *Cauc.*, is *light* in *Armenian* *bar-z* (Sanskrit *bha-s*), as in *Dravirian*, *mar-sal*, *bera-chi* &c. Indo-European has other forms and applications, e. g. *air* *wad* *Ossetic*, *vata* *Sansk.* *wat-em* *Zend*, *bat-as* *Bengali*, *bad* *Hindi* &c. &c.; *vent-us*, *wind*, *wan*, *win* &c. *fire* *fuir*, *vuur*, *fire* &c. Semitic *air* *a-war*, *a-wiru* &c.

4. The sibilant root is the most common in the Scythic glossaries; and in the Caucasian it is equally important with the labio-liquid. Scythic: *white* *a-sho*, *zag-a*, *chaga*, *sak-rin*, *sai-ran*, *sa*, *siri*, *sir*, *shora*, *sor-ny* &c. &c.; *light* *achik*, *sir-dik* &c.; *fire* *tog*, *tug-ut*, *tat*, *tol*, *tul*, *tuli*, *tuz*, *tut*,

Sam. tu, tui, shu, siu, &c.; *sun* shi, chat, chaia, hai, shun, shun-dy, siuna, siung, chotal, tir-ki-tir; *day* shi, chaya, tel, e-dur, doh, tu, chel, shun-du &c.; *moon* Yenis. tui, shui, che-n, cha-ip, Mong. sara, chara, sara-n; *sky* Yenis. eis, osh, es &c.; *air* sal-ki, chil, sel, tol, tyl, &c.

Caucasian: *fire* za, zo, zi, tze, m-za, m-ze, (Ossetic sin, din); *sun* m-se, b-sha, Georgian tuta; *day* dini, deni, den; *sky* m-teo, chi, mi-chi, p-chu, p-sha; *star* za, zoa, su-ri, su-ta, te-ru &c.

In the Indo-European family Scytho-Caucasian forms are common *sur* sur-ya, heli, sol, sonne, zon, sun; *day* dina, den, dan, dies, dit, det, dag, tag, day &c. They are also common in the Semito-African glossaries, e. g. *sur* shom, shems, tsai &c.

The exceptional Thochu chha' *moon* (Manyak nash-chah *day*) is Scythic, cha-ra Mong., cha-ip Yenis.

The Dravido-Anam forms appear to be partly western from their Caucasio-Scythic and Indo-European affinities, and partly archaic Himalayo-Scythic. Some of the Anam forms. e. g. sach or sak, that, tot, are more Scythic than Dravirian. The Dravirian and the similar Gangeto-Ultraiindian, aguin, have a close resemblance to Caucasian and Indo-European forms. Some of the Anam and other similar Gangeto-Ultraiindian forms closely resemble Chinese as well as Scythic forms. Probably in this as in other cases, the early Himalaic current—Mon-Anam—brought archaic Scytho-Chinese forms, and blended them in the mixed southern glossaries with the archaic Scytho-Caucasian and Scytho-iranian of the native Dravirian family.

		Water.	River.	Blood.
1	Bhotian wr. ..	chhu ..	<i>g</i> -tsang-po ..	kh-rag, kh-rang
	" sp. ..	chhu ..	chaug-po ..	thak
2	Horpa ..	hra' ..	hra' ..	syé se'
3	Thochu ..	chah ..	cha-bra' ..	sa'
4	Gyarung ..	<i>ti</i> -chi ..	<i>ti</i> -chi ..	<i>ta</i> -shi
5	Manyak ..	dya' ..	dya' ..	sha'
6	Takpa ..	chhi ..	chhi ..	kh-ra

### 1. The sibilant root.

#### Water. Blood.

Chhu; tsang, chang, chah, cha, sha', sa'; chhi, chi, shi, sye, se'.

The Sîran vocable for *blood* is Chinese; and it is also the prevalent Ultraiindo-Gangetic one. Chin. chiue, hiut, hue, he', Gyami sye; Horpa syé, se', Gyarung *ta*-shi, Thochu sa', Manyak sha'.

The forms current for *water* are also Chinese and Scythic. Chin. chui, shui, sui &c., Scythic su, shui, tui &c.: Gyarung *ti*-chi, Takpa chhi, Thochu chah.

One of the most prevalent Ultraiindo-Gangetic forms for *blood* adheres to the Chinese form for *water*, shui, chui, sui, tui,—Tiberk. shui, Deoria Ch. chui, Bodo thoi, Burm., Yuma swe, thwe, Karen thwi, N. Tanghul a-su, Nogaung a-zu. The Garo kan-chai, Singpho sai, Jili *ta*-shai, Koreng *ta*-zai, Yuma sai, chai, Tengsa ai, are modifications of the same form.

As *water* the full Chinese form is preserved in Kumi and Kyau tui, toi, Khveng tui, tue, Bongju, Kuki tue, Maram a-thui, Koreng *tu*-dui, Songpu dui, Bodo doi, Khoibu, Maring yui. Nogaung has tsu, Khari a-tsu,

Angami dzu, zu, Tengsa tu, Namsang jo, S. Tangkhul tu, C. T. tun-du, N. T. ai-chu *water*; Khari a-tsu, Nog. tsu-la-tsu, Tengsa tu-la, Joboka swo-kha, Muthun shoa, Namsang joan *river*.

The Changlo and Lepcha vi, Chepang wi are perhaps referable to the full form shui &c.

The Bhotian form for *water*, chhu (Chin. chui), resembles the Naga and Manipuri tsu, zu, tu, chu, &c.

The slender Ultraindo-Gangetic forms *ma-chi* T. Mishmi, *i-si* Aka, *a-si*, *a-he* Abor, *thi* Karen, *ti* Lungke, Muthun, Joboka, Chep., Milch., *si* Mulung, *tei* Mrung, *n-tsin* Singpho, *m-chin* Jili, *i-sing* Manipuri, resemble the Gyarung *chi water*, *shi blood*, Takpa *chhi water*.

This form is also common as applied to *blood*, *hi* Khoibu, Maring, Newar, *hi-ki* Bodo, *he* Namsang, *ih* Mulung, *Tablung*, *i* Abor, the Sak, *thi* Kapwi, *Kumi*, *Kyan*, *a-ji* Muthun, *Joboka*, *a-zyi* Maram, *a-zi* Chumphung, *a-shi* Luhuppa, *u-si* C. Tangkhul, *m-hi* Moz. Angami, *a-thi* S. Tangkhul, *Kami*, *Kumi*, *Lungke*, *Khyeng*, *ka-thi* Khyeng, *u-si* Sunwar, *chi* Garo, *ma-khi* Limbu.

The Kambojan *chi-am*, Mon *chi-m blood* is the Sifan-Ultraiidian form with the final labial sometimes found in Mon-Anam vocables, when it is absent in Tibetan (comp. *bird chi-m*, *shi-m*, *chi-vu*). It is probably connected with the Singpho *chin*, *tsin*. The root occurs with the same final or postfix in Aino *ki-m*, and Tungusian *sho-mu* [See also River].

The Ultraindo-Gangetic *shui*, *tui* &c. preserves the full Chinese form now lost in Tibet, and probably marks the oldest Tibetan current. The *tu*, *su* forms are allied to the Bhotian, and may indicate a second current. The slender Gyarung, Manyak and Takpa form appears to be that in which the last of the great Tibetan currents diffused the root to the southward. It is possible that all the principal variations may have been independently formed in each of the Tibeto-Ultraiidian provinces, and that the slender forms may be of equal antiquity with the broad. But the broad forms are common to Chinese, Scythic and Tibeto-Burman, while the slender have a more confined range, similar to that of many other Sifan roots and varieties. It is probable therefore that all the Tibetan forms were originally broad like the Chinese; that the Sifan *chi* was a contraction of the archaic Chino-Tibetan *chui*, or an imported Scythic form; and that the Ultraindo-Gangetic *chi*, *khi*, *thi*, *ti*, &c. in general belong to the Sifan-Ultraiidian current, or to the same phonetic era. The Irawadi-Sutlej *chui*, *shui*, *tui* &c. were probably derived from the pure Chinese forms once prevalent in the Sifan province.

#### River.

The first series for *river* has the common Chinese, Scythic and Tibetan root for *water* in a Scythic form. The Scythic forms are *shur*, *shor* Ugiian, *su*, *sug*, [o-suk, *sea*, Famsch.], *u-sun* &c. Turkish, *u-sun*, *chun* Mongol. The same form is found in Aam *saung*, *sung*, *song*, *som*, Kamb. *tun-i*. Bhotian and Thochu have *a*, Bhot. *g-tsang-po*, *chang-po*, *san-pu*, Thochu *cha-bra*. A West Bhot. voc. has *muk-sung*.

The Murmi syong, Serp. *hyung*, Ihop. *chhu kyong*, Lepch. *ong-kyong*, (*ong water*), Limbu *wo-hong*, Kiranti *hong-ku*, Gurung *klhwong*, Luhuppa, Tangkhul and Khoibu *kong*, Koreng *shing-gu* resemble the Anam *sung*, *song*,—but from the Manipuric form *gu* and the Nipal *kyong*, *klhwong*, *ku*, it is probable that the *k* form is a distinct root; Anam has *kong*.



The source is the Chinese kong K-t., kiang K-h., which would thus appear to have spread from N. Ultrindia to Nipal.

The Pashtu sean, sin, sin-t (whence Sin-d, Hin-d, Ind-us, India) may be Tibetan and not directly Scythic.

The Scytho-Anam sun, sug, sung is a common Indonesian word, sungai, &c. \*

The sibilant, in the common forms for *water*, is also *river* in Gyarung and Takpa. Garo has chi (*ti-chi* Gyarung, *chhi* Takpa), Abor *a-sie*, Newar *khu-si*.

The Chinese and Yuma full form for *water* *toi*, *tui* &c., is current as *river* in Bodo doi, Manipurian *dui-dai*, *tui-koak*, *tu-thau*, *tu-lil*, *tu-rel*, *tu*, *Limbu chua* &c.

## 2. The Liquid Root.

*hra'* Horpa, *dya'* Manyak, *water*, *river*; *kh-rag*, *kh-rang*, *th-ak* (for *th-yak*) Bhotian, *kh-ra* Takpa *blood*.

The root of the old Bhotian *kh-rag*, Takpa *kh-ra*, Sokpa *kho-ro-gwe* (? *kho-ro-gwe*), *blood*, is found in the Milch. *pu-lach*, Nicobar *ka-nak*, forms which have been derived from a very archaic Tibetan current. The Bengali *rak-ta*, Sindhi *rat*, may be referable to it. The root occurs in the Ugrian *wuo-rak*. The softened current form *th-ak*, Lhopa *th-yak*, Sarpa *th-uk*, have made no progress.

The Anam *tiet blood* resembles the Kambojan slender form for *water*, *tik*, (*tak* &c.). The Anam form may be a purely local variation of Chinese.

As *water* the root is Mon-Anam *dak*, *dat*, *tak*, *tag*, *tik*, *nuk*, in Nankowry *rak* (Nic. *ka-nak blood*), Bengali *u-dak*, Newar *lau*, *la*. *River* *tu-la*, *tsu-la*-*tsu* Naga, *ha-loung* Khyeng.

The form in *rk*, *dk*, *nk* &c. is *river* in Ka *dak-tani*, Kambojan *p-rek*, Burman *m-rik*, *m-riet*, *m-yit*, Khyenglik, Mon *water* *dhik*. This slender form is distinguished from the broad *rak*, *dak* &c. *water*, *blood*, and is similar to the Rakhoing *re*, *ri*, Changlo *ri*, Tablung *ri-ang*, Magar *di*, *water*. The same slender form without the final *k* is also found in words for *river*, *tun-li* Kambojan, *tu-lil* Manipuri (two roots), *li ku* Sunwar &c. Burman has also a broad form *m-rach*. † In the Thochu *cha-bra'* the last element is probably a similar vocable *b-ra'*, *m-ra'*; comp. *hra'* Horpa. The Sambawa *b-rang* is the Burman *m-rach* softened. A similar form of the root occurs in Mikir *lang water*, *lang-pirier*.

The root occurs with the labial final in the Lau fam. *nam water*, *river*, *oil*, Kasia *s-nam blood*.

The same root also occurs in Tibeto-Burman names for *oil*, in some cases by itself and in others with the name of the plant from which the oil is obtained. Bhotian has *k-bru-mar* in which *bru* or *b-ru* appears to be an archaic form of the liquid root for *water*. Horpa has *mar-nak*, in which the liquid root (*hra' water=rhak*) has the Nicobar form. Takpa has *kya-mar*, in which *kya* appears to be an example of the guttural root.

\* Sung-ai *water's-father* may have been an archaic Tibetan form, *ai father*, Lhopa, Thochu, Ugrian.

† This form is found in the name of the river Barak (*ba-rak*). In Marco Polo's time the Irawady appears to have been known by the slender form of the same vocable, Birus (*b-rus =m-riet*, *m-rik*).

The Thochu ching-yu appears to combine a Tibetan name for *water* with the Chinese name for *oil*, yu. Gyarung has chin-swi (chi *water*), Man-yak i-chi-ra, i ti-ra.

The sp. Bhotian num *oil* appears to preserve the Lau form for *water*. The Lepcha nam *oil* is identical with the Lau form.

### 3. The Guttural Root.

Most of the guttural forms appear to be variations of those in ch. The Chinese kiang, kong, khoi &c. may be radically the same as the Bhotian chang, tsang, but it is more probably connected with the Scythic guttural root. A few of the southern words appear to be directly connected with the Chinese.

*River*, kong Luhuppa, kong-pwi Maring, kyong, khwong, hong, Nipal.

*River*, kyi Toung-thu, kha Singpho, tui-koak Kapwi, a-run-kai Maram, ta-gha M. Kumi, khe Ahom, khye nam Khamti.

Sunwar liku, Magar kho-li, Newar khu-si, Kiranti hong-ku.

*Water*, kwi Murmi, kyu Gurung, pan-khu Sunwar; chi-ka Garo.

*Blood*, ma-khi Limbu, ka Murmi, koh Gurung.

hi Newar, hyu Magar, hau Kiranti.

*Oil*, ma-khu Lhopa, chi-gu Murmi, chi-kang Newar, chu-gu Gurung, gyo Sunwar.

### 5. The Labial Root.

Mon has the labial only, bie, pi *river*, and it is also current for *water* in Changlo vi, Chepang wi and Lepcha vi. In Lepcha vi is also *blood*. Kiranti has awa *oil*. For *sea* Mon has bi, bui, Anam bien.

The N. Dravirian vocabularies have a peculiar form of the labial root, *water* am Male, um Uraon. Kasia has also um and for *river* wah. These forms are distinct from the Southern, but the Scythic original both of the Toda pa and Northern am, um, is preserved in the Pashtu aba, abu.

A labial root occurs in several names for *river*. It appears in some to be the root for *father* or *mother*. The Lau fam. has me nam, nam me, *mother* of *water* (me *mother*); Mikir lang pi (lang *water*, mi *mother*, Kasia, pi, pe *female* Mikir), Sak pi-si. The broad form, generally *father*, is found in Kami ka-va, Kumi ka-wu, yang-pang (=rang-pang), Mru a-u, Lung-ke ti-wa, Mrung tei-ba. Kyau ti-poe, Karen has ti-mo (*water's mother*) Miri a-bunge, Aka su-bang, Sunwar pan-khu. In some of these forms also the labial only is retained.\*

Other roots for *mother* are also used. Mulung and Tablung have yang-nu (riang *water*, nu *mother*), Nams. jo-an (jo *water*, anu *mother* Muth.)

The name for the *sea* is sometimes formed in a similar mode, Burman has peng-le (*father of water*), Khyeng pan-le, pan-lei, Tungthu pin-lai.

Obs. 1. The ui form of the aspirate root—the most important of the Ultraindo-Gangetic and found as *water* and *blood* in the older Ultraindian group, Yuma &c.—is probably an archaic Tibetan form, as it is preserved both in Chinese and Scythic,—*water* Sam. tui, *sea* Aino a-tui, a-dui, a-zui.

\* This idiom is Scythic, e. g. Turkish aga-n-su, yai-su, ir-mak (*water* su Turk., e-mak Chukchi, *father* aga Turkish, ai Ugrian (Perm), *mother* ila Koriak).

The ai variation is also Scythic, but in the Irawadi tongues it appears to be a local variation of ui. The short forms tu, tsu, su, appear to be also local, although similar varieties occur in Scythic vocabularies. A single form imported in one Tibetan vocabulary may have originated all these southern variations of the broad form.

2. The slender southern forms are mostly connected with each other, and derived probably from the Sifan (Gyarung-Takpa) similar form. Its prevalence in the northern Irawadi-Brahmaputran vocabularies, Singpho, Mishmi, Abor, is strongly in favour of its immediate derivation from a southern Sifan dialect; and the extent to which it has been diffused amongst the Irawadi-Yuma vocabularies—especially in its Gyarung application to *blood*—render it probable that it was the vocable of the latest great Sifan migration, the Gyarung character of which has so often been noted.

3. The forms in n have a much more limited range. But their application to *river*, their close Scythic affinities, and their occurrence in Bhotian and Anam, show the form to have been archaically distinct from chui.

The Dravirian roots for *water*, *river*, *blood*, are distinct, and their line of connection with Scythic roots is also distinct. 1. *water*, niru, nir, nillu, tiru, Brahui dir; *blood* se-nmir (*red-water*, se-yya &c. *red*), u-dir-um, ke-nmir (ke-mpu *red*, ke=se); Comp. also cho-ga-*anna*, cho-ndud *red*, cho-ra, cho-re *blood*,—and the Uraon and Male khenso, keso *red*, khens, kesu *blood*. 2. *water*, pun-al, vell-um; *river* varu-pun-al, aru, eru, yer, polo, hole, pa, puzha (=pula). 3. *water* tanni; *river* tude, don-da; *blood* ne-tturu, ne-ttar, na-ttur; the root tur, tud &c. is probably a variety of tir, dir.\*

The Kol and Uraon name for *river* adds a 4th root, garra Kol, khar Uraon. It is found in Angami, karr, kerr, and Chepang, ghor.

The Tibeto-Ultraindian liquid root is found in Kol dah, dha *water*.

A slender form of the aspirate che-ih *water* has been received into Uraon, in addition to the native labial, um.

#### Foreign Relations.

#### The Sibilant Root.

This, as we have seen, is Chinese, *water*, and Scythic, *water*, *river*. The archaic broad form appears to be Chino-Himalaic. A similar form is found in the more primitive Scythic vocbs. Most of the forms for *river* are Scythic in form, the older Himalaic vocb. of Ultraindia preserving the pure Scythic variety sung &c. (Mongolian, Turkish). The sibilant and dental root is the most important in the Scythic vocabularies. In the older it has the labial prefixed. Fin we-si, Ugrian wi-t, wi-t, vi-s, Japan mi-zu, Aino *river* be-zu, be-z, *water* wa-z-ka, wa-cha.

The root is also found in Ugrian forms in the Caucasian tzun, shin, chi, p-si, p-seh &c. *water*; chi, p-si, chor &c. *river* (Georgian wi-tz); zi, tsha, cha &c. *blood* (also bi). Indo-European has wa-sse-r, wa-t-er, wa-da &c.

#### The Liquid Root.

The primary forms are rak, rat, lak, dak, nak, nuk;—nam. The root

\* In sec. 11 of ch. v. the Ultraindian taru is compared with some of the Dravirian forms. But it is now clear, from the collation of the Tibeto-Ultraindian names, that the root is ru (ta-ru).

is rare as *water*. In the great Scythic alliance the only analogous forms in Klaproth's vocabularies are the Yeniseian dok, Fin ta-tze, za-tse, which however appear to be referable to the sibilant root. The Lau form is preserved in the Tungusian word for *sea* nam, lamu. Ugrian has lei, a-ner, a-nyer *river* (Wolga); Mongolian nuhr, nor *sea*; Turkish nehr; and with the prefix ta-, da- both roots are used for *sea* te-nger Hungarian, to-nyar Tungus, ta-lai Samoiede, da-lai Mong., ta-loi, da-lai, de-nyis Turkish. A common Scythic name for *sea* and *river* also contains the liquid root, mu-ren, mu-ran, mu-ra, mo-ri, mu-di, mu-ny, mu-l.

The Scythic roots also occur in the vocables for *blood*, *milk* &c.

The root occurs applied to *blood* in lut, leut of the Lau fam., in the Aryan rak-ta, rat, ru-dira. It occurs in similar forms in African and Asonesian vocabularies (*water*, *river*, *blood*).

Possibly the Indo-European lac *milk* may be the same root, but it is at present too sporadic to take its place within this circle of affinities.

This root appears to be one of the primary ones of the Tibetan family, and, from its rarity and the nature of its distribution in the Aso-African glossaries, to have been one of the earliest dispersed. It appears to belong to the western or Ugro-Iranian side of the Tibetan affinities and not to the Chinese and eastern Scythic.

#### *The Labial Root.*

This root is common in Scythic, Indo-European, Caucasian, Dravirian, and Semito-African, as *water*, *river*, *sea*, *blood*, &c. But it is doubtful whether in the full forms, in which it is followed by the sibilant, dental, liquid or guttural; it is to be considered as the root or as a prefix. The forms mu, wa, bi &c. are comparatively rare, and, in general, evidently contractions of those which have a second element. Thus both bi and zi *blood* of Caucasian are referable to the Ugrian vi-s &c. *water*, wi-r &c. *blood*, because, from the prevalent forms for *water* and *river*, the vocabulary is clearly Ugrian (e. g. *water* p-si Cauc., wi-tz Georgian). In Ugrian the same contractions take place, e. g. *water* Ugr. wyut, ute, uit, wu, wa; Samoide bi, it, i, bu &c. The Caucasian vocabularies appear in this, as in other cases, to be immediately connected with the archaic Ugrian and not with the Tibeto-Burman. The common roots are subject to a similar range of mutations in every considerable group of vocabularies, as in the Ugrian, East Scythic, Tibeto-Burman, Asonesian, Caucasian and Semito-African.

In the Ugrian branch the labio-liquid is the common vocable for *blood* Fin wuo-rak (the full Tibetan form of the liquid), wa-r, we-ri, ma-le, (leipe); Ugr. wa-r, wi-r, ille, &c., Koriak mu-lu—mu-l.

Sanskrit has va-ri, wa-ri *water*.

#### *The Guttural Root.*

The guttural is Chinese. It is also a distinct Scythic root, kai, gei, ge &c.; kus; gol, kul, gun; Semito-Libyan khar, khor, kol &c.; Dravirian.

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*Earth. Mountain. Stone.*

*Earth.*

Tibetan.

1. sa Bh., k-cha Horpa, se' Gyar., sa' Takpa; zi-p Thochu.

2. *ma-li, m-li Manyak.*

## Southern.

1. sah Lhopa, sa Murmi, Gurung, cha Newar, jha Magar, *n-tha Ma-ram*, ha Namsang, Joboka, Bodo, Garo, ha-wan Muthua, ya Deoria Ch., han Toug-thu. [*Mountain* 3].

2. *th-li, ta-ri* Taying, *a-li* Tenza, Nogaung, Khari, *kun-di* Songpu, *kx-di* Koreng, ni Kyau, le-kong M. Kumi, *w-le* Lungke, *m-re* Burm. wr., *m-ye* sp., uhe Gurung.

*ta-lai* Kapwi, *thx-lai* Khoibu, *nga-lai* Champung, Luhuppa, C. Tangkhul, *k-lai* Maring, *mu-lai* N. Tangkhul, *lai-pak* Manipuri, *ka-lai-hong* Kami [nai Chinese, K-t].

noi Anam, nyai Mijhu, bho-noi Dhimal, (nui *mountain*, noi, loi, doi *hill* Lau fam.) [nai Chinese K-t].

lang-nin Khamti.

*u-lu* S. Tangkhul, *ku-long* K. Kumi, (*kx-lung* stone M. Kumi), *k-rong* Mru, ruong Anam.

dong, (also *mountain*) Anam, dung *country* Mon.

3. a-mong Abor, muang Lau, Siam, phuong, huong Anam, phat Lepcha, lai-pak Manipuri, ba-kha Kiranti, bho-noi Dhimal, ha-wan Muthun, Khamti, phen-din Siam, mien Anam.

4. *ka-tok* Mulung, Tablung; tho Anam [Chinese tho].

5. ki-ju Ang. (the-ju iron), su Anam, ki-je M. A. (je iron). [See *Mountain* 5].

6. ta-ka Jili, nyga Singpho, ba-kha Kiranti, kham Linbu, kho-pi Sunwar, ka Sak, ho kho Sgau Karen, gon kho Pwo K., khon Anam. khe-khel Uroan, ke-kal Malé.

7. dia, dia phan Anam, deiye Kambojan, [Ch. ti, dei, *land* ti, tien].

8. dat Anam, det Kkyeng, te Mon.

o-te, o-t, wa-the Kol.

9. din Siam, Ahom, lang-nin Khamti, phen-din Siam. This is probably a variation of li (2).

*Mountain.*

## Tibetan.

1. ri Bhot., Takpa, ri'-rap Horpa, [*Earth* 2, *Stone* 2].

Chinese lia, ling, Tungusian *u-lin, u-ro, u-ra*; Mong. *u-la, a-la, Fin u-r'*

2. *s-pyá* Thochu, *ta-vet* Gyar., *m-bi* Many.

## Southern.

1. [*Earth* 2, *Stone* 2]. *m-lo-di* Dophla, no-di Aka, *ma-long* Koreng, (*ta-lo earth*), *ka-long* Maram, *kh-lung* Maring (also *earth*), kho-lon Pwo Karen, rong Lepcha, dung-kang Tiberkhad, dong Anam, rok Lhopa.

*k-lang, s-lang* Lung-khe, *k-lang* Kyau, *mu-ra* Doing-nak, mina-ram Nogaung, ra Dhimal.

lai Mrung, loi Laos, doi Ahom, noi Khamti, nui Anam.

*hill*, non, *thi* non, *thi* don Siam, non, non sauh, ngan Anam, *pi-nom, pi-nong* Karab.

2. bom, bum Singpho, *ka-phung* N. and C. Tangkhul, Champung, Luhuppa, mue K. Kumi, a-pih Khari, min-a-ram Nogaung, moi Kumi, pa-awon *hill* Mon.

3a. [*Earth* 1, sa, ha &c.]. ha-ho Namsang (ha *earth*), ha-hoa Joboka

cha-ju M. Ang., ha-jo Bodo, ha-chur Garo, a-su Deor. Ch, *ka tsu* Sgau Karen, tok-song Limbu, sa-kha Ang. [Chinese shan].

*ma-san* Tengsa. [? shan Chinese].

3b. tok-song Limbu [*ka-tok earth* Mulung, Tablung, tu Mon, to-*ke* Male, dong-ar Gond]; son Anam, sa-tong Jili, tong Burman wr., taung sp., shung, tung Mru.

3c. *m-lo-di* Dophla, *no-di* Aka, *a-di* Abor.

*ram-thing* S. Tangkhul, Khoibu, ching Kapwi, Manipuri, cheing Songpu. dan-da Magar, Sunwar.

4. *ta-kung* M. Kumi, (le-kong *earth*), ta-ko Sak, kon L. Khyeng, koug Toug-thu, gun Newar, kwon Gurung, gang Murmi, se-kha Angami, kha Mon, do-kang Milch., dung-kang Tiberkhad, go, giong, kon *hill*, Anam, (kon, ku lau *island*), phu-khau Siam, kong jai (jai *high*). Dravirian kono-*m*, konda, kunnu, gudda. [*Earth* 6].

#### Stone.

#### Tibetan.

1. *r-do* Bh. wr., do sp., doh Serpa, Lhopa.
2. *gho-lo-pi* Thochu, go-r Takpa.
3. *r-ga-me* Horpa, ru-gu Gyar.
4. *wo-bi* Manyak.

#### Southern.

1. *n-tau* Maram, Songpu, da Anam, thach Anam.
2. [*Mountain* 3, *Earth* 2]. *mp-hla* Taying M., laung Mijhu, *ku-laung* Mrung, *i-lung*, *i-ling* Abor, *a-long* Dophla, *n-lung* Singpho, *ta-long* Jili, long Namsang, Muthun, Joboka, *a-long* Khari, lung-zuk Nog., lung-mango Tengsa, yong Tabl., yangi-yong Mulung, *k-yok*, *k-yauk* Burm., lung Kapwi, C. and S. Tangkhul, Kyau, nung Manipuri, *nga-lung* Champhung, Luhuppa, *thu-lung* Khoibu, lung-gau N. Tangkhul, *kh-lung* Maring, *ta-lo* Koreng, *ka-lung* Kumi, long-tchong K. Kumi, lun, lum Khyeng, Lung-khe, *ka-lun* Kami, ta-lon Sak, lung loang Tougththu, lu Sgau Karen, lon Garo, Pwo Karen.
- long Lepcha, lohong Newar, lung Limbu, lung-ta Kiranti, lhung Magar, phung-lu Sunwar, yuma Gurung, yum-ba Murmi.
3. *ti-mo*, *ta-mo* Kambojan, *ta-moe* Ka, *ta-mok*, *ka-mok* Chong, *ka-mok*, *ka-mouk* Mon, man Kasia, *ta-wha* Mru, pak-h-na Uraon.
4. *ka-tse* Ang., *ka-che* M. A. [shi, shik Ch.].
5. un-thur Dhim., on-thai Bodo.
6. hin Siam, Khamti, Laos. Prob. from hil Asam, and hil from the Bengali shila, Hind. sil.
7. tongi Gond (*mountain* dong-ar).
8. dirri, diri Kol.

The names for *earth*, *stone*, *mountain*, *land* or *country*, and *island*, often involve the same root.

In the Tibeto-Burman vocab. the sibilant root is *earth* and *mountain*; the liquid is *earth*, *mountain* and *stone*; the labial is *mountain*, *earth* and *stone*.

#### 1. The Sibilant Root.

#### Earth.

The sibilant root is used for *earth* in all the Tibetan dialects save Many-

ak,—sa, sá, cha, sé, zi. In the South it is rare, occurring in the Naga-Bodo and Nipal groups in forms referable to the Bhotian and Horpa.

### Mountain.

In the Naga group it also enters into names for *mountain*.

The similar root generally combined with it has u, o,—ho, hoa, ju, jo, chur, song,—in Deoria Ch. and Sgau Karen this last form is itself the name su, tsu. It is the qualitative *great, high &c.*

In the only full vocabulary of any dialect of the Naga group which we possess—Mr. Hodgson's Bodo—ha, with qualitives postposed, forms numerous other names.

## 2. The Liquid Root.

### Earth.

1a. The only Tibetan example of this application is the slender Manyak *wa-li, m-li*. Burman has the same form modified to re, and the same prefix. It occurs with the dental and guttural pref. (Gyarung) in Taying Mishmi and some of the Manipurian dialects. The prefix in the Naga *a-li* may be either from *ma-* or *tú-*.

1b. A broad form lu, long, dong, dung, roun, ruong, has this application in S. Tangkhul, K. Kumi, Mru, Anam and Mon (*country*).

1c. The *a* form is rare—Yuma, Nogaung, Dhimal.

2. The form lai of the Manipuri group appears to be connected with the Anam noi and Chinese nai; and with the noi, loi, doi *hill* of the Lau fam. The Mijhu nyai preserves the Chinese vowel better than the Anam noi; while it is an example of the Anam element found in Mijhu.

### Mountain.

1a. Bhotian and Takpa have the slender form which Manyak applies to *earth, li*.

1b. In the south the slender form is not used. But the o, u form occurs in Dophla, Lhopa, Lepcha and Tiberkhad on the one side, and in the Manipuri group, Pwo Karen and Anam on the other. That this is an archaic Tibetan variety appears from the forms and their distribution,—rong, rok Lhopa, Lepcha; dong *mountain, earth* Anam, dung *mountain* Tiberkhad, *country* Mon, tong *mountain* Jili, Burman. The dental forms, however, may be referable to the qualitative sibilant root.

### Stone.

The l, r, root occurs with this application in Tibet in the Thochu *gho-lo-pi*, Takpa *go-r*.

The broad form is more common in the south with this application, than any other. It has all the variations that occur in the names for *mountain* and *earth*—long, lo, lung, lun, lu, yok [=lok, rok], laung. It is found in the upper Brahmaputra-Irawady band—Dophla to Singpho—in the Naga, Manipuri, Yuma and Karen groups.

Abor has both the broad and slender vowels lung, ling; Manipuri has an n form, nung; the Burman k-yauk, k-yok is referable to a form *k-rauk, k-rok* similar to the Lepcha rok *earth*.

## 3. The Dental Root.

### Earth.

The Chinese ti, K-h., tin, ti K-t., tho Hok-kien, Hai-lam; tien *land*,

K-h.; tin, ti K-t., *lands* tin to K-t., is allied to the Anam tho and dia, and Kambojan deive.

The Anam dat, Khyeng det, Mon te, and the Kol te, the, are of doubtful affinity. Similar forms of the sibilo-dental root for *large* &c. occur, e. g. det Bodo. In the Anam dat dai, dai is the qualitative *great*, but dat may have been an older form. The Aryan desa, desh, may possibly be the original of det, dat.

#### Mountain.

The dental and sibilant root appears in general to be the qualitative, *large* &c.

#### Stone.

The Bhotian do is probably a form similar to the southern dong, and its etymology must share in the doubts that attach to it. The Anam da, thach, Maram n-tau, are also similar forms of the dento-sibilant root for *large*, ta, tai Chinese, dai Anam, tai M. Mishmi, tau Newar, da Garo.

### 4. The Labial Root.

#### Earth.

The labial root is not applied to *earth* in Tibetan.

In the south it occurs in the Mon-Anam family, Muthun, Dhimal, Abor, Kiranti—generally in conjunction with another root.

#### Mountain.

The Gyarung *ta-vet*, Thochu *s-pya'*, indicate that the full form had a final k, t, and that the Manyak bi is a contraction.

In the south the root is rare and the forms are different from the Tibetan, Singpho having final -m, Manipurian and Nogaung -n.

#### Stone.

In Tibet, Manyak alone has the labial, wo.

The Mon-Kambojan group has it in a more archaic form, mok. In distinct forms it is also found in Mru, Kasia and Uraon.

From the rarity and the mode of distribution of the labial, the little connection between several of the forms, and the identity of all with current forms for *great*, *round*, *fat* &c., it is evidently the same root; and it was probably originally used as a qualitative in all cases, as it still is in several of the names. Thus in the Muthun ha-wan it follows ha *earth* (comp. *great* wa Burm., ba Singpho, *round* pan Ahom, *fat* kwi-pan Gyarung); lai-pak Manipuri has the common Manipuric root for *earth* lai, followed by a form of the root for *large* which may be Manipuric (no qualitives being included in the vocab.), and is similar to the Lepcha phat *earth*, Gyarung *tu-vet*, Thochu *s-pya'* *mountain*, and to the form of the qualitative in Abor bote, *large*, Tengsa *ta-bok*, Khari *tu-bit* (= *ta-vet* Gyar.) *fat*, Manyak wa' wa' *round* &c., and to the Mon-Kambojan *ta-mok*, *tu-mo*, *stone* (= *tu-bok fat* Khari), Manyak *wo-bi*. The Singpho bom bum, *mountain*, is the Bhotian *large* bom. Singpho itself has phum *fat*, in Bodo phung, which is the Manipuric form for *mountain*, phung. The Kumi mue, moi *mountain*; Dhimal bho-noi *earth* (noi *earth*), Kiranti ba-kha, Abor inong are also similar to current forms of the qualitative—ba *large* Singpho, mon *round* Khanu, pwi *large* Thochu &c.



The Khari *a-pih mountain* has the slender form applied to *large* in Khari itself as in 'Tengsa, Thochu and Chinese, and to *fât* in the Lau fam.

### 5. The Guttural Root.

#### *Earth, Mountain.*

The guttural root is not Tibetan. It is found in that range of the southern vocabularies which has the greater proportion of archaic Himalaic and Indian vocables—Anam, Mon, Yuma, N. Gangetic &c. The most common forms khon, kon, kung, kang &c. best adhere to the primary form—kunnu &c. Drav.

#### *Stone.*

The Horpa ga, Thochu gho, Takpa go, Gyarung gu, is not found in the south. It is probably a comparatively late Scythic acquisition. The Dravirian kan, kol, kolla, kallu has distinct Scythic affinities.

The qualitives for *great, round, fat, high, long*—into many of the names for which, the same root enters—appear to be used in the present class of words to some extent. The imperfection of the vocabularies is a bar to our discriminating them from the substantive roots, with some of which they are phonetically identical. The words given for *earth* vary in their meanings from the mere soil, to land generally, to the earth as a whole, to a particular country &c., and it is quite possible that, in the wider applications, the qualitative *great* may have formed part of the name. That it should occur in words for *mountain* is more obvious. The same root occurs in names for earth and stone, and the epithet *large* might readily be applied to rocks as well as mountains in the Tibeto-Himalayan region.

In the names ha-ho, ha-jo, cha-ju, ha-chur, tok-song *mountain* (5), in which ha, cha, is the sibilic-aspirate root used for *earth, land*, the second element appears to be, without doubt, a Himalaic qualitative for *great, high, tall* &c. su, thu, tho, sung, jo &c. (p. 30 to 32); and in the Deor. Ch. a-tsu, Sgau Karen ka-tsu, the same qualitative appears to be used as the root.

The Manipuri ching, cheing, thing, are much closer to other forms of the sibilic root for *large* &c. than to any of the undoubted variations of the liquid root for *mountain, earth*. The adjacent Naga has the broad form chung, chong *large*. The Jili, Burman and Mru tong, iaung, tung, shung *mountain*, may also be referable to this root. Tong again is so close to dong &c. that it unsettles its relationship also.

In lo-di (3) the slender form of the same qualitative follows the liquid root (*large* thi Gyarung, ti Lepcha &c.)

The labial is clearly the root for *large* &c.

The most common liquid root for *earth, mountain* and *stone* is phonetically identical, in most of its variations, with the liquid root for *great* &c. But as this is necessarily the case whenever the same sound forms different roots, each with several applications, it does not seem possible, with the present small vocabularies, to say if the identity be more than phonetic.

#### *External Relations.*

1 and 3. *Earth*. The sibilic-aspirate sa, cha, ha, tha, zi *earth* is probably connected archaically with the Chinese ti, tien, tin, tho.

In the Scythic alliance this root is not common in the sibilant form, but the guttural, which is very prevalent, appears, from the gradations in several of the groups, to be in general a variation of the sibilant. It is not Ugro-Fin in the sibilant form. But Samoiède has the Tibetan form, ja, dscha &c., Aino tui, toi, Japan tsu-tsi, tsi, zi, Korea ta-ti. The Japanese and Korean are probably Chinese. Turkish has sir, ser, zir, yir, &c., Aino sirikata, Korea chulu, chli, hilyi, Tungusian turu, tor, Turkish tor-pach &c., Mongolian has cha-dsar, ga-syr &c.; Votjak has mu-seim.

Caucasian has sach, sech (Ugrian *hill*, Chinese *earth*) Ossetic; di-cha, mi-tza (Fin) Georg.; tzu-la, tu-la, chu-llah, (Korea chu-lu &c.) cheh, chy, mu-sa, mi-sa, bi-su (Fin *mountain*), Cauc. proper.

Scythic forms are found, as usual, in Indo-European. The pure sibilant occurs in Zend sa, sao. The sibilant-liquid sir, ser, tor, turu &c. is represented by the Celtic tir, dor, duar, Latin terra; and the labio-sibilant of Scythic and Caucasian by the Aryan mari-ti, ma-ti, ma-ts &c. The Slavonic family has sem-lya, sem-ya, sem &c., Zend semo, Sanskrit sima, Persian zam-in (synn-it, shim-ta &c. Kamsch.)

*Stone.* The sibilant root is also applied to *stone* in Chinese shi, shik, chio, sa'; in Scythic—Fin tshi-mi, zi-wn (ki-wi), Ugrian is (Permian) Japan, isi, ishi (tsi *earth*), Aino shio-ma, Tungusian za, hv-sha, Yeniseian shish, Mongolian tsholo, tshila-chon, Turkish tshol, tash &c.; in Iranian sil-ex, shi-la, sila &c.; staina, stain, steen, stone &c.; in Caucasian i-zo, che-zo, hin-zo, she-ru, Ossetic dor, durr (Tungusian *tor earth*). Semito-African ha-dsar, hu-sar, a-sar, yi-sha.

*Mountain.* The same root is applied to *Mountain* in Fin mo-tshi, mo-zi (hill me-to, ma-tas); Ugrian, is Perm (also *stone*), tshoi Perm (syai, mu-syen *earth*); hill Wolga u-sach, ech-sait: Samoiède sye, seda, soti &c.; Yeniseian dschii, chai: Turkish syrr, kirr, \* tu, tach, tag &c.; Ugrian (Wogul) *hill* sal, Mongolian *hill* shili.

Semitic has also the dento-liquid of Scythic, tiru, turo, toira; serri Hara-gi, tulu Gallia.

Armenian has zori *hill*.

From these examples it appears that the sibilant root is one of the primary Asiatic ones, and that the Tibetan form associates itself with the guttural Chinese, Samoiède, Caucasian and Zend, shi, sa', dscha, sach, sa &c. &c. and not with the liquid Scytho-Iranian, Georgian and Semitic tzula, tur, siri, sila &c. &c.

2. The most important root is the liquid, of which the more archaic broad forms, lung, long, rok &c. are preserved in the South,—Tibetan having lo as an element in Thochu gho-lo-pi *stone* only, the form in *earth* and *mountain* being slender. If the root be not the native liquid root for

\* The Turkish syrr, kirr suggests a connection between the sibilant-liquid and the gutturo-liquid root—the latter being common to Scythic, Indo-European, Caucasian, Semitic and Dravirian. Scythic,—gora Fin, kur-uk, ker-as Ugrian, kar, kono-ny Yeniseian (which has also kai, chai, dschii); Indo-Eur.,—gora, kore, gura Slavonic, gor Celtic, giri Sanskrit; Caucasian kur-sh; Semitic gar, gor &c.; Pashtu gar; Drav. kunnu &c.

*great* &c. (pp. 31, 32)—the forms being, to a great extent, identical—it has few external affinities. This circumstance is strongly in favour of the sibilant being the substantive Himalaic root, and the liquid being merely the qualitative *large* &c.

In the Scythic alliance the liquid root appears to occur only in two dialects of Ugrian, loch Ostiak *mountain*, rok *earth* Volga.

4. The labial is a Scytho-Iranian and Caucasian root for *Earth*, *Stone*, *Mountain*, but it does not appear to have any connection with the Tibeto-Burman forms.

*Mountain*. One of the most widely spread varieties for *mountain* is the labio-liquid. Scythic—ware, wuori, Fin pauda, wan-da, ponda, uwa-pun, pel, pal-ta, *hill* mar, moi-na Ugrian, ma-i, mo-y-mon-si, bor, bre Samoiede, buri, *ns*-bari Aino, urra, uro Tungusian, ula, ola (*hill* bol-duk, bori) Mong., muc-on Turkish, a-mar *hill* Yeniseian. Caucasian mehr, meer, bil, pil, da-bura, bir-d. Indo-European par-va, par-but; berg, barg, biarg &c.; mons. Dravirian varei, male, buru, par-ta; Australian *an*-birik, wari-at, mar-de; Indonesian bulu, palu.

A labio-guttural is found in Circassian buch, buko-du (*earth* bak Les-gian, bach Yeniseian, ma, mag, myg Ugrian, tor-pach Turkish) and Malagasy vohi-ts, buhi-tra &c.

*Earth*. Scythic,—ma, mu, mag, my, myg Ugrian, pan, pany, biny, bach Yen. Drav. puda-vi, pulo-va. Nilotic—barr Tumul, baro, baru Dan-kali &c.

*Stone*. pai, pui, po, phi, pi, Samoiede, poi-nah Aino; vatu, batu Malagasy; wari-at, walang, wal-bi, bura, maramo, &c. Australian, &c.

# NAMES OF PARTS OF THE BODY.

	Head.		Hair.		Eye.		Ear.
1	Bhotian wr.	m-go	wr.	{ s-kra s-pu	mig		r-na
	sp.	go		kra, ta	mik		am-cho
2	Horpa	gho		s-pu	mo		nyo
3	Thochu	ka-pat		{ hom-pa grong kachu	kan		nukh
4	Gyarung	ta-ko		{ pu kra	{ tai-myek tam-myek		tir-ne
5	Manyak	wulli		{ mui tsi	mni		na-pi
6	Takpa	gok-ti		{ pu kra	me-long		ne-blap

<i>Mouth.</i>	<i>Tooth.</i>	<i>Hand.</i>	<i>Foot.</i>	<i>Bone.</i>	<i>Skin.</i>
1 kha	so	lag-pa	r-kang-pa	rus-pa	pag-spa
	kha	so	lango	kango	ru-ko
2 ya	syo	lha	ko	re-ra	pag-pa
3 czukh	swé	jipá	ja-ko	ri-pat	g-la
					ra-pi
4 ti-kke	ti-swe	ta-yak	ta-mi	syá-rhu	ti-dri
5 ye-ta	phwi'	lap-ché	lip-ché	ru-khu	g-ra'
6 kha	wá	la	le-mi	ros-pa	phyekh

### Head.

1. The guttural root connects Bhotian, Horpa, Gyarung and Takpa. It is Ugrian *og*, *oike*, *ug-ol*, *ug-om*, Yeniseian *koi-go* &c. The Gya:ung form is prevalent in Abor, and the Naga-Yuma group. Mishmi has *m-kau*, *kou*. The Takpa *gok* is found in Manipuri *kok* (Limbu *tha-gek*). It has been communicated—by the Naga fam. apparently—to Male and Uraon, *ku-pe*, *ku-k*; *kho* Namsang, *ta-ko* Tengsa, (*ko hair*), *ta-ko-lak* Nogaung, *m-ku-ra* Mishmi, *kho-ro* Bodo, *kha* Keren, *kau* Chumphung, *kui* Luhuppa, *a-kao* N. Tangkhul, *o-kao* S. T., *lu-gu* Khyeng, *a-khu* Sak, *khong* Muthun (*kho hair*), *khang-ra* Joboka (*kho hair*), [*kra hair* Bhotian &c.], *khong* Buim. wr., *ghaung* sp., *nggum* Jili.

It is also applied to the *hair* *ko* Nogaung, *ku* Tengsa, *kho* Mithun, *kwa* Khari, *kin* Deoria Chutia.

2. The Thochu *kapat* is one of the peculiar vocables of this dialect. It appears to be Scytho-Iranian, and to have no Ultraindo-Gangetic representatives.

3. The Manyak *wu-lli* appears to be an example of the Scythic liquid root. The Dhimal *pu-ring* is derived from it, and the Khari *ta-lim* has the same slender form. The broad one is found in the Manipuri gr., *a-lu*, *lu*, Yuma *lu*, *lhu*, *a-lu*, Ahom *ru*, and Magar *mi ta-lu*, (but the last may be *tsu*, Drav.). The broad form appears to be that of the Lau family, in which the common form, *ho*, *hua*, seems to be a softening of the liquid root preserved in Ahom. It is also applied to *hair* in that fam. See *Hair*.

This root for *head* is found in the forms *long*, *ron*, *rung*; *ru*, *lom*, attached to the names for the *eye* and *ear* in some dialects. For *eye* Takpa has *me-long* (*eye of head*, *me* is the root for *eye*), Taying Mishmi *mc-lom*, Garo *mok-ron*. For *ear* Abor has *nya-rung*, *no-rung*, Mishmi *na-k-ru*.

4. The dental and sibilant root is common in the South for *head* (See *Hair* 3.).

### Hair.

There are two prevalent terms, *pu hair* in general, and *kra* that of the head.

1. The labial is found in all the vocabularies. The form *pu* connects Bhotian, Horpa, Gyarung and Takpa. The Thochu *hom* and Manyak *mui* are exceptional.

The root is Chinese, *mo Kwangtung*, *fah*, *mau Kwan-hwa*, *bo* &c. in other dialects. It is also Scythic.

The term is rare in the south. Dhimal has the Manyak form *mui tu*. The *Tablung Naga min*, *Sak ku mi* (*ku head*), *Garó ku-man*, *Bodo l'ho-mon*, are probably of distinct Chinese origin. The *Naga min* resembles the Chinese word for *face min*, and the *Kwan hwa pin* (*Kwangtung pan*) the hair on the temples. *Kiranti* has *moa* and *Gurung moi*.

Applied to the *head* it occurs in *Singpho bong*, in the compound *Burman chhan-bang*, *s'ha-ben hair*, in *Sougpu pi*, *Maram a-pi*, *Koreng cha-pi*, in *Sunwar pi-gu* and *Magar mi talu*.

The *Kol bu*, *buhó*, *bohú head* (*ub*, *up hair*) may be Tibetan.

2. *kra* occurs in all the vocabularies save *Manyak*. The *Thochu form*, *grong*, is exceptional. The root, if the guttural, may be Scythic, *kar-n Fin*, *kar-nu Aino*. The guttural is an element in words for the beard in *Yeniseian* and *Tungusian*.

This root also is not common in the south. It occurs in *Singpho kara*, and with the meaning *head* in *Gurung kra*, *Mishmi m-kura*, *Bodo khoró*, and *Manipuri ta-kolak*.

From the disposition of *Bhotian* to merge the prefix in the root, *kra* is probably a contraction of *ku-ra*. In the *Thochu g-rong* the root has a form similar to the *Anam long*; *ph-rum Ahom*, *ph-om Lau*, *Siam*; *lu Khyeng*, *ta-lu Tung-thu*. In some of the Southern forms the first element is not a def. pref., but the guttural root, and the Tibetan *k--g* may also be radical, e. g. *ta-ko-lak Manip.* = *s-k-ra Bhot.*, *m-ku-ra Mishmi* &c.

3. The *Bhotian ta*, *Manyak tsi* and *Thochu ka-chu*, is also Scythic,—*ata*, *at* &c. *Fin*—and Chinese, *Kwangtung*, *tsz hair* of the upper lip, (*Manyak tsi*), *su beard* (*ka-chu Thochu*). The Chinese *thau*, *sau*, *head*, may be also connected with the *Tibeto-Ultraindian* dental and sibilant roots for *hair* and *head*.

In the south it is the most common term; but the source of some of the forms appears to have been a broad archaic vocable early introduced by the *Mon-Anam* family. *Kambojan sok*, *Mon tok*, *sok*, *thwot*, *suet*, *Karen thu*, *Kasia shuin*. This form is allied to the *Thochu chu*. *Mikir* has *chu*, and *Namsang Naga ka-cho* (= *Thochu ka-chu*), *Mulung su*, *Dhimal tu* (*mui tu*), *Taving Mishmi thong*, *Lepcha a-chom*, and *Newar song*.

The *Bhotian ta* appears to be related to the common *Irawadi* form. *Mijhu cham*, *Angami tha*, *Burman chhan*, *s'ha*; *lu-sam Khyeng* (*lu head*), *a-sham Kami*, *sham kumi*, *Mru*; *Sunwar chang*, *Magar chham*, *Limbu tha-gi*.

It is also one of the most common southern names for the *head*. *Anam mang song*, *thu*. *Naga sang*, *Angami a-tsu*, *Abor mi-tu-b*, *mi-tu-k*, *tu-ku*, *ka-tau*, *Toung-thu ka-tu*, *tu*; *gu-toh Lhopa*, *a-thi-ak Lepcha*, *tha-gek Limbu*, *tang Kiranti*, *tho-bo Murmi*, *chhon Newar*.

The Chinese *thau*, *shau*, may have been the original of both *a* and *u* forms for *head*, *hair*. *Anam* has the derivative *dau head*.

#### *Eyc.*

1. The labial root is found in all the dialects save *Thochu*. The slender form connects *Bhotian* with *Gyarung* and *Manyak*. While these slender forms preserve the final guttural, the *Horpa mo* preserves the vowel of the Chinese form,—*muk Kwang-tung*, *mo Kwan-hwa*, *mok*, *ma*, *bá* in other dialects.

The labial root is common in the Scythic vocabularies as applied to the

*Head, Hair, Beard, Face, Mouth, Lip, Teeth, Nose, and Ear*, but it is either in the pure labial form, or with a liquid or sibilant final, r, l, n, s. The guttural occurs in the Ostiak wai-mik *face*. The Japanese me, manako *eye*, are related to the Chino-Tibetan root; *face* is o-mote.

2. The Thochukan is the common Chinesengan, Kwang-tung &c. (yen in Kwan-hwa).

The Brahui and Dravirian khan, kan, appears to have been derived from the Thochu form of the Chinese root. The Turkish kar appears to be also connected with the Thochu and Drav. form.

The Manyak mni and Takpa me appear to be referable to the slender form mik, myek; mni is explainable as min from ming, mik. The form min is found in Mru, mi in Mijhu Mishmi, Singpho, Dhimal, Angami, and several Yuma dialects, mi, me, a-mi, Karen me, Khyeng mi-u-i; min appears to be an archaic form of the root, as it is applied to *face* in Chinese mien, min, Abor ming-mo (*eye a-ming*), and probably in other Tibeto-Ultraiindian dialects. The word *face* is not included in the short vocabularies.

The form in t, d, occurs in Lhopa mi-to, mi-do (also mig), Miri a-mi-da, N. Tangkhul a-mi-cha. As -to, -do, is a Lhopa postfix (gu-toh *head*, gong-do *egg* &c.) the root may here have the contracted form. But mito may be mit vocalised. Kyau has me-et, me-to. The Bhctian form raik, mig is the most common Ultraiindo-Gangetic.

The broad Mon-Anam mot, ka-mot, pa-mot, mat, Kuki mut, appears to be a distinct importation by that family. It is directly referable to the Chinese mok, muk. The form mak is also found in Châmph. a-mak, Garo mak-ar, Bodo mag-on, and Kiranti mak. Naga has te-nok.

The Deoria Chutia muku-ti appears to have the full Chinese muk (*ti* is the Takpa form of the dental postfix).

The Gyarung myek is found in Burman, myek-chi, myet-si.

The Abor nyek, Naga te-nyk, te-nik appears to be a modification of a similar form. It is found in Lau pa-ned, and Kambojan pe-ne, pa-nek.

The form met, meî, has been received by the Kol dialects.

The common ta of the Lau fam. appears to be from mi-to Lhopa, mi-da Miri, mat-ta Shan. *Face* is na ta, in Namsang than.

The Takpa long (*Head* 3) of me-long, is found in Taying Mishmi molom, ma-lam, Garo mok-ron, mak-ar, (See also *Ear*).

### *Ear.*

1. na Bh. wr., and Manyak, nyo Horpa, ne Gyarung and Takpa, are connected. The Thochu nukh or nu-hh is probably a full archaic variety of the same root. If so, it is neither Chinese nor Scythic with the meaning *ear*. Chinese has rh, ro, ngi, li, i; Kamschatkan illa, yel-uth, all-od, il-yud; Caucasian en, in, lai &c.; Indo-European ohr, ur, aur-is, or-eil; African ilai, iroi, ulu-k, uil-ge, na-ru, noa, no-f.

In some languages the *ear* derives its name from its resemblance to a *leaf*. In the Takpa ne-b-lap *ear*, b-lap is *leaf*. As the Tibetan na does not closely resemble the Scythic and Chinese roots for *ear*, it appears to be itself an older application of the same root for *leaf*. Bh. lo-ma, Horpa ba-lâ. In Manyak it has n (as in the word for *ear*) nip-chê; Sokpa has nai. In the south ne, na, lai occur, as well as other l forms. In the Manipuri group na is the common form, and in some of the dialects the forms for *leaf* and *ear* correspond, e. g. Songpu nhui *leaf*, a-nhu-kon *ear*; Cham-

phung sing-nu *leaf*, khu-nu *ear*; Kapwi na *leaf*, ka-na *ear*; Angami po-nye *leaf*, a-nye *ear*.

The Chinese yip, ip, ye *leaf* is perhaps a softened form of an archaic root similar to the Tibetan nip, lap &c.

The Burman rwak *leaf* (yuet sp.) and the Kambojan si-lok are archaic forms with final k for p, as in the Thochu nukh *ear*.

The Tibetan root is very common in the south, mostly in the a form—Singpho, Naga gr., Manipuri gr., Yuma gr., Karen, Burman, Nipal gr.

The o, u, form of Horpa nyo and Thochu nukh, is found in Kumi kuno, Khyeng luo, ka-nhau, Lepcha a-nyo-r, Sunwar no-pha; while the common Naga form is na, Khari has ti-nhaun, Nogaung te-naung and Tengsa te-lanu.

The slender form of Gyarung and Takpa ne, is found in Angami a-nye, Limbu ne-kho.

The Mijhu Mishmi ing, Maram in-kon and Mikir in, an, are peculiar variations of the slender form.

In the Dhimal nha-tong, tong appears to be the Tibeto-Ultraiinda dental postfix as in Tib. me-tig *flower*, men-to Takpa, Lhopa me-do *eye*, Abor lam-te *road* &c. It occurs with the same form in the Dhimal si-tong *tooth*, and in the Garo lha-tong *tooth*, ho-tong *mouth*.

The root for *ear* is combined with the liquid root (for *head* probably), in some dialects nio-rong Dophla, nya-rung, no-rung Abor, Lepcha a-nyo-r.

Taying Mi-hni has na-kru and n-kru-na (m-kura *head*), Karen na-ku (ku *head*), Garo na-chil, Songpu a-nhu-kon, Tangkhul a-kha-na, o-kha-na, na-ko-r, Khoibu kha-na, Limbu ne-kho, Magar na-kyep.

Maring has na-mil and Aka na-bar. In the Nipal gr. a labial postfix is frequent, but it appears to be the definitive in some instances,—na-ba Kiranti, na-pe Murni; nai-pong Newar, na-be Gurung, ne-pha Sunwar (ne-vo Lhopa).

If na &c. were originally *leaf*, these compounds were probably "leaf of the head".

The Bodo kho-ma, Gara ma-chor, Kasia s-kor appear to have only the word for *head*, the root for *ear* being dropped. (In the Mon-Anam comp. voc., kor &c. is treated as the root for *ear*, improperly as I now think).

2. am-cho Bh. sp. This term appears to be exceptional in Tibet. Serpa has a fuller form am-chuk. This appears to be also an ancient Tibetan word for *leaf*. It is found in some of the Naga dialects, pan-chak, hu-chak, phum-yak, (pan &c. is *tree*), Deoria Chutia chia.

The Tengsa and Nogaung am is probably a contraction of the Tibetan am-cha. Robinson gives nam-cho as the Bhotian term, from which it would appear that nam is a form of na, nap, lap &c.

The Lau family has hu, Lung-khe hua, which appear to be modifications of the l, r, n, root for *ear*, *leaf*, the liquid sometimes becoming aspirate in the Lau fam. In the same way the Gurung lau *leaf* is hau in Newar; and the sp. Bhotian hyo-ma appears to be a softening of lo-ma.

#### Mouth.

1. The Bhotian kha, Takpa kha and Gyarung ke are connected. The Horpa ya is probably a softening of kha, and the Manyak ye is referable to it.

The root is Chinese and also Scythic,—kau Kwan-hwa, hau Kwang-tung.

It is not common in the South. Songpu aka, Kumi uk-kha, Taying Mishmi ta-khu, ku-kwen, Aka gam [Garo wa gam *tooth*], Bodo khou-ga, Garo ho tong (pha tong *tooth*).

2. The Thochu dzukh is perhaps the same root—as the sibilant and dental found in several of the southern dialects, Naga gr. *tun*, *chu-sim*, Manipuri *chil*, Kuki *taung*, Garo *ko-sak*, Kasia *shin-tur*, Maram *ma-thu*, Murmi, Gurung *sung*, Sunwar *so*, Kiranti *doh*, Chepang *mo-thong*, Shan *thsot*, Sgau Karen *tha kho* (*kho head*). With the labial final it is found in Ahom and Khaniti *sup*, *sop*.

The root is Scythic and Chinese. Fin *su*, *sun*, *sum*, Ugrian *shob*, *shus* &c.; Chinese *sui*, *choi* &c. See *Tooth*.

3. The most common root in the South is the labial. Abor *na-pang*, *na-pung*, Naga gr. *te-pang*, *ta-bang*, *tu-pin*, *amu* (Moz. Ang.). Kumi *la-baung*, Khyeng *a-hmaung*, Manipuri gr. *ma-mun*, *cha-mun*, *kha-mar*, *kha-mor*, S. Tangkhul, Khoibu, Maring *mur*; Lepcha *a-bong*, Limbu *mura*.

This root appears to be of Mon-Anam origin,—*pak Lau* gr., *meng*, *mieng* Anam, *pan*, *kha-mon-pan* Mon; Ka *boar*, Kambojan *mat*, Nicobar *minoe*.

The labial root is Scythic—*o-m*, *ha-mun*, *a-ma*, *a-man*, Mongol., whence probably the Mon-Anam *pan* &c.

Singpho has *ningur*, *ugrop*, Jili *nong*, N. Tangkhul *ania*, S. T. *onia*, Burman *nhup*, *nhok*, Pwo Karen *no' Sak ang-si*, Mru *naur* Mijhu *Mishmi nnyut*, Magar *nger*; Chong *ra-neng*.

The root is Scythic *nyan* &c. Samoiede.

#### *Tooth.*

1. The Bhotian *so* and Horpa *syo* are related. The Thochu and Gyarung is probably the archaic form. The Manyak *phwi* and Takpa *wa'* may either be referable to it or to the labial root for *mouth*.

This vocable is the Chino-Scythic root for *mouth*. Chin. *sui*, *ch'hui*, *choi*. Fin *su*, *sun*, *shum* &c. Ugrian *shus*, *tos*, *shob* &c. [Sclavonic also has *sub*]. It is *tooth* in Turkish *tish*, *tusch* &c., Samoiede *tipe*, *tip*, Ostiak *tiwu*.

It is not very common in the South, unless it varies to the labial. Mijhu *Mishmi tsi*, Anam *si*, Burman *swa*, *thwa*, Pwo Karen *thwa*, Murmi *swa*, Gurung *sak*, Magar *syak*, Changlo *shia*, Lhop *sah*.

Several of the forms strongly resemble those of the sibilant and dental root for *mouth*, *head*, *hair* (*Hair* 3), and the root is probably ultimately the same. Comp. the Mon-Anam *sok hair*; Abor *mi-tuk*, Lepcha *a-thiak head*; Garo *ko-sak*, Sunwar *so mouth*; Gurung *sak*, Magar *syak*, Bhotian *so*, *tooth*.

2. Labials are more common. Singpho *wa* (Takpa *wa'*), Naga *va*, *pa*, *ta-phu*, *ta-bu*, *pha*, *ta-pla*, Manipuri gr. *a-va*, *a-ha*, *o-ha*, *ha*, *a-hu*, *hui*; Garo *pha toug*, Aka *jhi*, Daphla *fig*, (Manyak *phwi*), Abor *i-pang*, Siamese *fan*, Kambojan *tim-bang*; Sgau Karen *me*, Yuma *a-pha*, *ha*, *a-ho*, *ho-o*; Lepcha *a-pho*, Limbu *he-bo*, Newar *wa*, Milchaung *bung*.

The root is identical with the labial one for *mouth*. In Scythic languages also it is used for *tooth*,—Ugrian *pane*, *pin*, *pon-h*, *pan-kt*.

3. Mijhu *Mishmi lan*, *la*. S. Tangkhul *ala-ra*, Anam *rang*.

This exceptional term is probably the liquid root for *head*, which also occurs attached to roots for *ear*, *eye*, &c.

4. The Lau *khian*, *khui*, Jili *kong*, Kiranti *kang*, are probably related to the guttural roots for *mouth* or *head*. The Sunwar *kryu* may be connected with the *k-r* root for *head*, *hair*.

5. Kapwi *nga*, Tung-thu *ta-nga*, Maram *a-gha*, Manipuri *ya*, Songpu *nai*, Mon *n-reok*, *ngeat*, *nget*. This vocable is Chinese, *nga Kwang-tung*, *ya Kwai-ha*.



*Hand.*

1. The final guttural connects the Bhotian lag, lango and the softened Gyarung yak. The Horpa lha and Takpa la are probably contractions of the Bhotian form. Tha Manyak lap appears to be a distinct archaic form, as a similar form is applied to the *foot*, lip.

This form is the same that is used for *leaf*, and it is also found in southern languages with both meanings. Gurung lap-*ta hand*, Murni, Newar lap-*te leaf*.

The -k form is an archaic variety of the same root, as it is also current for *leaf*.

The root has both meanings in Scythic also. The Bhotian form resembles lag-ol Ugrian, i-lik Turkish, *hand*.

2. The Thochu jipa is peculiar.

1. The common Tibetan root is prevalent in the South Lhopa la-*pa*, Abor e-lag, Aka lak, Naga dak, chak, yak, Garo jak, chak-reng, Mrung yak.

Singphu leta, Burman lak, let, Mru rut, Lepcha ka-liok.

The Manyak -p form occurs in Mijhu Mishmi yop, and Gurung lap-*ta*.

3. Tengsa ta-khat, Nogaung ta-kha, Khari ta-khet, Manipuri gr. khut, kut, a-khui, kuit, hut, Lungke kut, Kyau ket, Kumi kok, a-ku, ka, Kami a-ku, Sak ta-ku, Khyeng kuth, Bodo a-khai, Dhimal khur, Ahom kha, Chepang kut-*pa*, Magar hut piak, Limbu puk, tu-phe, Kiranti chuku-phema, Changlo godang, Milchanang god, got.

4. Jili ta-phan, Songpu ban, Koreng cha-ben, Maram van, Champhung a-pan, Luhuppa pang; Angami a-bi (*foot a-phi, u-phi*), Sunwar g-wi; Lau fam. mu, mo, mi.

Chinese words for *hand* and *foot* are found in some of the Ultramindian vocabularies, that for *hand* being in some applied to the *foot*, and that for *foot* to the *hand*. *Hand* shau Kwan-hwa, kwang-tung; *Finger* shau, chi, *ib.*; *Foot* tsu Kwan-hwa, tsuk Kwang-tung.

Taying Mishmi thyoa, a-tua, Anam tay, Ka dei, Mon tway, tai, Kasia k-ti, Karen tshu, T'oung-thu su, tsu, Deoria Chutia otun.

Sunwar ta-b-le. (See *Foot*.)

*Foot.*

1. The Bhotian kang, kango, Horpa ko, is the Chinese root keuk, kioh, kha.

2. The Manyak lip-che and Takpa le-mi, have the same liquid root that is also applied to *leaf*, *car*, *hand*.

3. The Thochu jako appears to be Turkish, ajak.

4. The Gyarung ta-mi, and Takpa mi of le-mi, may be connected with the Chinese po, a *footstep*.

1. Manipuri khong, Singpho la-gong, Jili tak-khyai, N. Tangkhul a-kho, C. T. o-kho, S. T. a-ke, Kapwi ki, Maring ho, Mrung ya-kong, Karen kho, khang, T'oung-thu khan, Anam kon, kang, Kami a-kho, Kumi a-kok, a-kauk, Mru khök, Khyeng ka-ko, Dhimal kho koi. Anam chen, kon, kang, Kambojan chong, Mon chang.

2. Garo cha-p-lap (cha-kreng *hand*), Lhopa kang-lep,

The Naga cha, tchya, da, ta-ching, ta-chang, ta-tsung, Khyeng ashi, Doing-nak teng, Sak a-tar, Lau fam. tin, ten, Mon tshih, Lepcha diang-liok, have the root used for *hand*. The Nogaung ta-tsung *foot* is faithful to the Chinese tsu, tsuk *foot*. The Lau and Mon forms appear to be of Naga derivation.

Mulung and Tablung yah-lan (yak-lan *finger*, yak *hand*).

Garo ja-chok, chap-lap (chak-reng *hand*, le-chak *leaf*).

Taying Mishimi *m-grung*, *m-groh*, Burman khre, k'eye, Kiranti *u-khuro*.

Mijhu Mishimi *m-p-la*, Abor *a-le*, Singpho *la-gong*.

Murmi *bu-le*, Newar *pa-li*, Gurung *bha-le*, Magar *mi-hil*, Sunwar *kh-we-li*.

The Tibetan *lag hand* is found as *foot* in Aka laga, Lepcha *diang-liok*, Limbu lang-daphe, Murmi *ba-le*.

4. Angami *a-phi*, *u-phi*, Koreng *cha-pi*.

Maram, Songpu, Luhuppa phai, Champhung *a-phai*, Bodo *ya-pa*, Khoibu wang, Kyau pat.

### Bone.

The old Bhotian *rus-pa* is found in Takpa *ros-pa* and without the suffix in Magar, Sunwar and Chepang. The current *ru-ko* is found in Manyak *ru-khu* and Manipuri *a-ru-kau*. The Gyarung *syu-rhu* is also Manipuri *sa-ru*. The Lau duk, nuk is probably referable to the Manyak form.

### NAMES OF FAMILY AND SOCIAL RELATIONS.

The small vocabularies only contain the names for *Man*, *Father* and *Mother*.

*Man* is mi in Bhotian, mi' in Takpa, and *tir-mi* in Gyarung. Horpa has *v-zih*, Thochu *na*, and Manyak *chhoh*. It is probable that the Horpa *zih* is masculine and not generic, as it occurs with a masc. power in the Manyak *nga-zi* and Thochu *zyah bull*. *Mi* is common in the Ultraindo-Gangetic vocabularies.

1st, generically, as in Bhotian and Gyarung, varying in form to *bi*, *wi*,—e. g. Newar *mi-jang man*, *mi-sa woman*, Burman *sa-mi girl*, Singpho *si-wi girl*, Garo *mi-chek wife*, Miri *mi-yeng wife*, *mi-mo woman*, Bodo *bi-hi wife*, *bi-ma mother*.

2d, with a feminine application. Kasia *mi mother*, Khamti *me girl* (Dhimai *be-jan boy*), Mishmi *mia woman*, Siam *tua-mi fem. of animals* (*tua-po males*), Mishmi *k-mai woman*, Anam *mai, fem. of birds*, Mikir *a-pe fem. of animals &c.*

The sibilant has a masculine application in the Bodo *bi-shai husband*; Siamese *chai*, Khamti *sau man*; Kumi *tchau man*, Pwo Karen *p-sha man*. The N. Tangkhul *pa-sa* and Kasia *pen-so man* is probably also masc. and not generic. The Manyak *chhoh* is a cognate root, (comp. *cho Ostiak*).

The Thochu *na* is Chinese *nan*, *nen*, *man* (vir), lang *husband*. The root occurs with the masc. power in the Bhotian *pa-la father* and it is very common in the Ultraindo-Gangetic vocabularies as a masculine root and servile, both for man and the inferior animals.

The word for *father* is *pha* in Bhotian *wr.*, *pa-la sp.*, *a-pa* in Horpa, Manyak and Takpa, *ta-pe* Gyarung and *ai* in Thochu. That for *mother* is *a-ma* in Bhotian, Horpa, Manyak and Takpa, *to-mo* in Gyarung and *ou* in Thochu. The Bhotian masc. and fem. roots, postfixes and prefixes in *b*, *p*, *v* and in *m*, are the same words as those used for *father* and *mother*. In the southern vocabularies they are almost universal with similar meanings and functions, and with various changes of form. In several of the dialects they are now definitives absolute as in Bhotian. The masc. application of *ba*, *pa*, *fa*, *va*, *bi*, *be*, *bo*, *bu* &c. and the fem. of *ma*, *mo*, *mu*, *mi*, *me*, &c. is common to most formations in the world, and must

have been coeval with the beginning of human speech. [See App. *Father*, *Mother*]. In some families, however, *m* is masc., and *b* &c. fem. [See Dravirian Comp. Voc., App. to chap V].

The Tibetan *mi min* is probably connected with the Scythic masculine root of the same form, generic words for the species being generally cognate with masc. and not with fem. roots. Ugrian has *mis*, *mes*, *maz*, *man* &c. for *husband*, *man*.

The peculiar Thochu words *ai Father*, *ou Mother*, are Scythic,—*ai Father* Ugrian, *aua Mother* Turkish.

The Chinese *nu*, *neu*, *na*, *woman*, *female*, does not appear to occur in the Tibetan vocabularies, but it has been received into several of the Ultratibetan. Gerard however gives *aua* Bhotian.

The Chinese fem. *tsi*, *tsz* (confined to Birds in Kwan-kwa) is found in Horpa *s'-me girl*, and is common in the south.

#### MASCULINE NAMES.

##### 1. The Labial Root

<i>mau</i>	<i>male</i>	Chin. K-h, <i>ib.</i> ( <i>cattle</i> ), K-t.
<i>fu</i>	<i>futher</i> , <i>husband</i>	K-t., K-h.
<i>phu, pu</i>	"	Anam
<i>phua</i>	<i>man</i> ( <i>vir</i> ), <i>husband</i> ,	Siam.
<i>pho, po</i>	<i>male</i>	Bhot. sp.
<i>ba</i>	"	"
<i>pha, pa</i>	<i>futher</i> , <i>male</i>	Bhot. wr.
<i>pa-la</i>	<i>futher</i>	Bh. sp.
<i>a-pa</i>	"	Bhot. wr., Horpa, Manyak, Takpa, Lhopa, Murmi, Kapwi, Maram, N. Tangkhul, Muthun, Joboka; Mon.
<i>tu-pe</i>		Gyaring.
<i>po, pho</i>	<i>father</i>	Lau fam.
<i>a-pok</i>	"	Kambojan.
<i>a-po</i>	"	Mozome Angami.
<i>a-pu</i>	"	Songpu, Koreng, Tengsa, Angami.
<i>am-po</i>	"	Kumi.
<i>i-bo</i>	"	Champhung.
<i>bo</i>	"	Khyeng.
<i>bu-bu</i>	"	Abor.
<i>a-bu</i>	"	Newar.
<i>a-bo</i>	"	Lepcha, Gurung.
<i>thong-po</i>	<i>mule</i>	Changlo.
<i>sing-pho</i>	<i>man</i>	Sing-pho.
<i>pong</i>	<i>male</i> ( <i>un.</i> )	Namsang, wa-pong pat. uncle, Mijhu.
<i>i-pho</i>	<i>brother</i>	"
<i>poh</i>	<i>man</i>	Kumi.
<i>tua-phu</i>	<i>male</i> ( <i>un.</i> )	Siam
<i>wa</i>	<i>father</i>	Singpho.
<i>va</i>	"	Jili, Namsang, Dhimal.
<i>pa</i>	"	Sgau Karen, S. Tangkhul, Koibu, Mru, Kasia, Chepang.
<i>u-pa</i>	"	Nogaung
<i>o-pa</i>	"	C. Tangkhul, Tablung.
<i>o-pah</i>	"	Mulung.

pa-pa	<i>father</i>	Maring.
pha	"	Pwo Karen, Toung-thu.
ka-pha	"	Lung-khe.
pha-ai	"	M. Kumi.
pha-e	"	Burman.
a-phe	"	"
pa-ci	"	Kami
bai	"	Magar.
a-pai	<i>male</i>	Mijhu M. (fowl).
ke-pai	<i>father</i>	" "
u-pha	"	Garó.
a-bha	"	Marung.
a-va	"	Luhuppa.
na-ba	"	Taying.
a-ba	"	Aka, Sak, Toung-thu, Serpa.
am-ba	"	Limba.
ba	"	Kiranti; Kyau.
ba-ve	"	Sunwar.
bi-pha	<i>male</i>	(an.) Garó.
ba-ka	"	Miri.
pha	"	(birds) Barmar.
wa-jan	<i>boy</i>	Dhimal.
mi	<i>man</i>	Kuki.
a-me	"	Taying.

2. *The Liquid Root.*

nan	<i>male</i>	Chin. K-h., K-t.
nen	"	" Shang-hai.
rin	<i>man</i>	" Gyami.
lang	<i>husband</i>	Chin.
nam	<i>male</i>	Anam.
na	<i>man</i>	Thochu.
pa-la	<i>father</i>	Bhot.
la-sya	<i>son</i>	Singpho (sya daughter).
de-la	<i>husband</i>	Namsang.
je-la	<i>male</i>	(an.) Bodo, ta-la (fowl) Taying.
la-go	"	Changlo (prob. lag-o).
dan-kha	"	(an.) Dhimal.
ma-ran-ma =		M-yan-ma, M-ya-ma, Ba-r-ma.
p-ra	<i>man</i>	Karen.
ph-lai	<i>male</i>	(elephants) Siam.
t-rai	"	Anam.
k-lang	<i>man</i>	Khyeng.
ku-ren	"	" [= Kh-yeng].
mi-jang	"	vir, Newar (mi-sa woman).
lan	"	Toung-thu.
Ta-lein =		Mon.
leng	<i>husband</i>	Burm.
len-ja	<i>male</i>	Magar.
nga-long	<i>man</i>	Mijhu.
ka-ru	"	Mon., male Taying.
k-ru	"	Mon.

k-loun	<i>man</i>	Karen.
mi-lo	<i>husband</i>	Miri.
mio-lo	"	Daphla.
k-lee	<i>man</i>	Ka
lu	"	Burman, Sak.
m-ru	"	Mru (= N-ru).
mu-ru	"	Sunwar.
ma-ro	"	Lepcha.
ruot	<i>father</i>	Anam
loh	<i>male</i>	(small an.) Kumi.
lu-hi	"	(birds) " " "
t-rong	"	" " " " " "
Si-long =	"	si-long
nguoi	<i>man</i>	Anam
nhon	"	"

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daghi-po	<i>husband</i>	Bhot. (Gerard).
jako	"	" (Rob.).
dach	"	Milchanang.
chagha	"	Tiberkhad.
lago	"	Changlo.

3. *The Sibilant Root.*

v-zih	<i>man</i>	Horpa.
chhó	"	Manyak.
chong	"	Anam
t-tchong	<i>man</i>	Mijhu

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chai	"	Siam
sau	"	Khamti
tchiau	"	Kumi.
cha	<i>further</i>	Anam
bi-shai	<i>husband</i>	Bodo.
jik-se	"	Garó.
tho	<i>male</i>	(many an.) Burm.
thi	"	" " " " " "
thuk	"	(an.) Khamti.
duk	"	" " " " " "
p-ting	"	(large an.) Kumi.
pa-sa	<i>man</i>	N. Tangkhul.
pen-so	"	Kasie.
me-sa	"	Silong.
sinh	<i>father</i>	Anam
de	"	"

4. *The Guttural Root.*

kung	<i>male</i>	Chinese K-h., <i>ib.</i> (an) K-t.
kang	"	(inanimate) "
hung	"	(birds) K-h.
hiung	"	" " " " " "
yiong	"	" " " " " "

kée'n      masc. principle in nature Ch.  
khon      vir      Siam

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a-gu	male, father, Bhot. (Gerard).
{ ja-ko	husband Bhot.
cha-ga	" Tiberkhad.
ji-k-se	" Garo (mi-cheek wife, chek=jik generic).
u-gu	paternal uncle Bhot. (Gerard).
a-ku	" Tiberkh., Milch.
kea	father " Tiberkh.
a-keo	male Milch.

## FEMININE NAMES.

1. *The Labial Root.*

pan      female Chinese K-t.  
pin      " (an.) K-h.  
mu      " (an.)  
fu jin      woman. Chin.

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ma, mo, m fem. part. and pref. Bhot.  
a-ma      mother Bhot., Horp., Many., Takp., Dhim., Garo, Gurung.  
ta-mo      " Gyarung.  
mo-b-jye      wife Bhot.

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da-mo	fem. Chang'lo (Gyar.).
moi-bo	wife "
vo	" Anam
mi-mo	woman Miri.
ma	fem. (an.) Burm.
bi-ma	" (an.) Garo.
"	" mother Bodo.
ma-pani	fem. (an.) Dhim.
phang	" (elephants) Siam.
ban	wife " Siam
don bu	woman Anam
a-mi	mother Burm.
mi	" Kasia.
me	" Lau fam. Anam
mia	wife Siam
tua-mia	fem. (an.) Siam.
mia	woman Taying M.
be-jan	girl Dhim.
a-pe	fem. (an.) Mikir.
a-pi-so	wife. "
na-bi	elder sister Taying (na-fo elder brother).
si-wi	girl Singpho.
mau	mother Anam
k-mai	fem., woman, Mijha.
mai	fem. (birds) Anam.
mei-ma	fem. Burm.
a-pu	mother Tengsa.

na-mu	<i>mother</i>	Abor.
na-ma	"	Taying
2. <i>The Liquid Root.</i>		
nü	<i>fem.</i>	Chin. K-t. K-h.
neu	"	"
na	"	K-h.
nu	<i>woman</i>	Anam

a-ne	<i>mother</i>	Bhot. (Gerard).
a-ne	"	Aka.
a-nu	"	Naga, Manipuri gr.
o-nu	"	"
nu-nu	"	Mijhu
noa	"	Manipuri.
num-sya	"	Singpho.
num-sa	<i>fem.</i>	"
nu	"	(an.) " , Kumi.
nang	<i>woman</i>	Siam
na-na	<i>mother</i>	Miri.
ne-ka	<i>fem.</i>	(an.) "
mi-eng	<i>wife, girl</i>	"
ing	<i>fem.</i>	Siam.
ing-yong	<i>mother</i>	Namsang.
n-yong	<i>fem.</i>	(an.) "
ing-yah	<i>sister</i>	"

3. *The Sibilant Root.*

tsi	<i>wife</i>	Chin. K-t.
tsai	"	K-h.
tez	<i>fem.</i>	(birds) K-t., K-h.
s-me	<i>girl</i>	Horpa.
us-res	<i>woman</i>	Gyarung.
am-cho	<i>woman</i>	Bhot. (chho' man Many.).
a-zhim	<i>sister</i>	elder Bhot.
sing-mo	"	younger "
jo	<i>fem.</i>	(an.) Dhim.
jong	<i>mother</i>	Mikir.
hi-n-jo	<i>woman</i>	Bodo.
mi-cheh	<i>wife</i>	Garó (jik-se husb.).
the	"	Anam.
ta-si	<i>fem.</i>	(an.) Taying.
si-wi	<i>girl</i>	Singpho (i si-wi, comp. siag-pho).
hi-hi	<i>wife</i>	Bodo.
hi-n-jo	<i>woman</i>	"
nya	<i>daughter</i>	Singpho.
sa-mi	<i>girl</i>	Burman (s'-mé Horpa).
mi-sa	<i>woman</i>	Newar.

4. *The Guttural Root.*

kwan	Chin. K-t.	(fem. principle in nature.
ka	<i>fem.</i>	def., Kasia
gai	<i>woman</i>	Anam.

kai	fem.	(an.) „	
			5. <i>Vocalic.</i>
yang	Chin.	K-t.	fem. principle in nature.
ying	fem.	Khamti.	
mi-yeng	wife	Miri.	
m-eng	„	Abor.	
ing-yong	mother	Namsang.	
ing	fem.	Siam.	

#### NAMES OF DOMESTIC AND OF SOME WILD ANIMALS.

The names of the more familiar quadrupeds, domestic and wild, are more or less connected in all groups of language that retain a primitive and homogeneous character. The same root has been applied to several of these quadrupeds as a generic name, the species being denoted by a definitive, or a qualitative, or by the addition of a second substantive name. In the progress of dialectic separation and change, the same pure root, or the same compound, has come to be applied to different animals in the various dialects; vocables originally identical have acquired distinct forms and applications by phonetic changes in one or more of their elements, principal or accessory, or by throwing off the latter; and, on the other hand, vocables originally dissimilar have acquired a close resemblance. Roots primarily denoting only the sex or age have acquired a substantive character and become restricted in particular forms, to certain animals. Thus words that first signified man, woman, child, were applied to mark the sex and age of the lower animals; and in some cases, by the loss of the substantive names which accompanied them and by the acquisition of peculiar phonetic forms, they eventually superseded these names, so that the same root may, in the same dialect, mean not only man and the male of a lower species, but the species itself, male and female. By the loss of the specific name and the permanence of the descriptive, the same animal may acquire distinct names not only for male and female, and for the young of different stages, but for other varieties in breeds or individuals,—as those of size, form and colour. Thus while a single root sometimes continues to be applied—joined with descriptive words or slightly varied phonetically—to animals of different species, the varieties of the same species, and even diversities in the same breed, may be known by distinct roots. Secondary forms and applications have been communicated by one dialect to others, so that while, on the whole, the general glossary of each group has, by the lapse of time, gained in richness and individuality, while preserving the primitive stock of roots, each single vocabulary has become less homogeneous and systematic in its nomenclature, and has even lost some of the archaic roots or compounds. To ascertain the radical stock of names and the primitive method of applying them we must consider the glossary in the aggregate. To ascertain the relations of particular dialects we must consider each departure from the archaic system as a substantive historical fact. [See chap. V. sec. II, *Names of Parts of the Body*, p. 208, *Names of Domesticated Animals* p. 240].

Dialectic relations can only be fully understood by comparing words in groups, comprising all those that are etymologically related. But to form such groups with accuracy demands the perfection of a science which can hardly be said to have yet taken a definite shape. We must be in



# ETHNOLOGY OF THE INDO-PACIFIC ISLANDS.

## APPENDIX TO CHAP. VI. OF PART II.

### A.

#### COMPARATIVE VOCABULARY OF THE NUMERALS OF THE MON-ANAM FORMATION.

##### One.

*India*,—moi, midh, miad, mia, mi, mea (Kol, Gond). *Ultraindia*,—wei Kas, muo, maai. Mon; bo Karen; po Angami Naga; aimu Singpho; moe Karuboja, Ka, Chong; mot, Anam. *Malay Peninsula*,—mui Besisi. *Asonesia*?—amui (2) Mairasi; latui. Bruner I. (2). Mui, moi, moe, is probably the oldest of these forms *Africa*,—Kicamba umue (Suah mo-ja, S. Af. mu-sa, mo-chi &c.); Akuongo, ema; Cam. mo; Nuba wa-rum, wee-ra &c.; Rungo mo-ri, Benin bo. *N. and M. Asian*,—om, uem, Samoied; emu, omin &c. Tungus.

##### Two.

*Ind.*,—bar-ia, Kol, bar-ea, Gond. *Ultra*—ar. Kasia; ba Mon; bar Ka, Chong; pia Kamb. (3 of Kol); hei, Anam. *Mal. Pen.*,—be, Simang; mar, ha-mar, ma, Binua. *N. Asia*,—mal-goh, Chukchi. *E. and S. African*,—biri &c.; *W. Afr*—fire &c, Akuanga, epa; Cam. ba; Karab. ebal; Rungo mba-ni; Calb. ma; Mok. iba; Bong. baba; Bin. be; Ib. aboar, abo.

##### Three.

*Ind.*,—op-ia, p-ia Kol. Gond. *Ult.*—pui, pai, Mon; peh, Ka, Chong; bai Kamb., ba Anam. *Mal. Pen.*,—wiup, Sim.; am-pi, am-pe, am-pet, Binua.

I can find no decided foreign affinities. The term (*pui*, Mon, *wui-p* Simang) appears to be a flexion of *mui* 1. The Binua form appears to have been modified to accord with the Malay *am-pat*. 4. the Binua terms above 3 being Malay. In the extreme N E of Asia and the adjacent Polar American languages of the same formation, *pi* is an element in 2, *pi-gayut*, Chukchi, Eskimo. It does not occur in N. American formations.

There is a distinct term for 3, having a very limited range,—*lai* Kassia; lui, Car Nicobar; luha Nankowry. Unless the Namsang *van-ram*, Munglung and Tablung lem, are connected with this word, it has no other direct affinities that are very obvious. The following terms may be related to it;—Kassia *han-dai*, *kon-dai* 2 (? 6, 3; ku is 6 in Kuki, Karen &c, but here it may be merely the Kassia prefix *ha-*, *d* and *r* being frequently preceded by *n* in Kassia); rai, 8, Bongju, roe Kuki [See EIGHT]: There is another, and, as it appears to me, more probable explanation of this form. If the basis of the Mon-Anam system was strictly binary, and *pui*, *wui*, is simply *mui*, 1, a little disguised, the Nicobar *lui* may be the original form of the Kasia *lai*, and, like *pui*, a mere variation of *mui*.

##### Four.

*Ind.*—pon-ia, u-pun-ia, u-pn-ia Kol; o-pun-ia, u-phun'Gond. *Ultra*,—pon, Mon; pon, Chong; puan, Ka; buan, boan, Kamb.; bun Anam; fuan, feun, fen, Nicobar. (? *lemang*, Simang).

This numeral is very remarkable. It is a modification, found in *Asonesia*, of the Africo-Malagasi term which, in another form, has spread

so widely over Asonesia. *Mid.-Africa* (Hausa, Galla, Saumali, &c.) fudu, fulu, ofur; Malagasi éfar, éfad &c. *Asonesia*,—*an*-fa, Nias; *an*-far, Keb; *kai*-phar, Tanne; fan, tang, Caroline; far-iat Marian; owang Pelew; haui, New Guinea. The more common Asonesian form is the dental pat, *am*-pat &c. The root is Egyptian and Iranian (*ftu*, *four*, *chat-var*, *fuso* &c.) It is simply a variation of the similar root for 2 (i. e. the dual of 2, as in other binary systems). The Ultraiudian and Indian forms cannot be derived from the Iranian *chat-var*. They are evidently connected with the ancient Asonesian form prevalent in Micronesia and derived from Malagasi. Taken with the fact that the terms for 1, 2, (and 3, if a more flexion of 1) are also African, they afford some proof that the same long enduring western civilization which carried Malagasi and E. African words to Asonesia, at one time embraced Ultraiudia in its influence.

### Five.

san, Kasia; *pa*-sun, Mon; *thanin*, tuni, Nicobar; chang, Ka. The Lau *ha* appears to be a modified contraction of san, tha. The Kuki sun-*ha*, Bongju tswur-*kar*, Car. Nicobar sum, 10, is probably the same term. It is African, being found in the same formation to which the Malagasi owes so much, and from which the previous Vindyan terms may also have been derived,—Galla, Saumali, shan, zan. That it is an ancient Mid-African root, belonging to a diffusive civilization, is evinced by the progress it has made to the Westward and Southward. Binin, tang, Papah *al*-tong, Cam. *ma*-tan (this language has also the Vindyan and Ultraiudian 1, 2), Calbra son-*ni*; Rungo otani (Comp. the Nicobar forms); S. African sanu, tanu, &c. The same root is also Samoie le, Tungusian and Aleutian (san, tong, chang, san, sun) an Asiatic distribution which shews that its diffusion in Asia and Africa was anterior not only to that of the Iranian, Semitic and Caucasian, but to that of the prevalent Scythic, numeral systems. Radically the word signifies "hand". It is found with this sense in Dravirian as in many other languages.

In the Menam basin a second term is preserved, *pram*, Chong, Kamb; nam, lam, Anam. The root appears to be ram, lam, nam, and *p* to be a prefix, as in Mon. The Nankowry lam, 10, is the same term.

The Vindyan term is *mor-ia*, mona-*ya*, mone, mo-*ya*, Kol; mun-*ia*, muna-*e* Gond, which may be an inversion of the Kambojan and Anam, or *vice versa*. If the Mon term had been Tibeto-Burman, there would have been grounds for identifying the Vindyan and Kambojan vocables and considering them as representing the original Mon. But as the Mon term is native or African, this explanation appears to be inadmissible. If the Vindyan term has displaced an older one of Mon origin, it may have been derived from the Tibeto-Burman pungu, phungu, Naga; bonga, Garo; phong Mikir &c.

The Kambojan and Anam term is not only found in the Nankowry lam, 5, but in Daphla rang, 10, Mon, klom, 100 (Ka dam, Anam tam) and in shorter forms, ra &c., in the Naga dialects, Garo, Mikir, Bongju, Kuki, Kambojan, and Lau, with the power of 10, 100, 20 &c. All these forms appear to be referable to the binary nomenclature, which some of the terms for "eight" prove to have co-existed with the quinary. Ram, 5, is probably an abbreviation of ra-ma, that is ra 4 (or 2 dual) and ma, 1. In the same way the Vindyan 5, muna &c., may be a flexion of pun, 4. From the evidence afforded by some of the higher

numbers that the Mon system used both the binary and quinary methods of expressing those numbers, a usage by no means singular, I have little hesitation in referring both the Vindyan and Kambojan terms to the single Mon-Anam system.

Although I can find nothing to warrant the opinion that the Vindyan and Kambojan languages might have obtained separate terms from East Africa, for I have no doubt that all their African terms were received through the Mon, it should be remarked that analogous words are current in some African vocabularies. The true explanation, I conceive, is, that the African terms in question are formed from the same binary definitive roots, *ma, ba &c; ra, la, na &c.* A Suahili dialect has *manut*, and to the westward forms similar to the Indian and Ultraindian occur, —*mun, Bullom; mu, Kru; num, Akin; am, Amina.*

### Six.

The Vindyan terms, like some of the Ultraindian, appear to be Tibetan. *Ind.*—*tur-ia, turu-ya, turui* Kol.; *turm, turume* Gond. The Gond has an exceptional term *sa-rong* (*sa* is a prefix in 5 also, *s-aij-an; yaij* Toda) which appears to be simply *ru* of the Kol dialects nasalised. But it may be directly derived from the Naga form *so-ru*. In the Gawil form the *ng* becomes *m*. *Ultr.*—*ka-rao* Mon; the Bongju, Kasia, Burma, Singphu, Chong and Ka terms are all similar antique modifications of the Tibetan. The *Ka-rao* is a derivative of the Mon. The Chong *ka-dong* is a nasalised form similar to the Gond *sa-rong*. In Bodo, Dhimal, Bongju and Naga, forms in *t, d* and *r* also occur.

The anomalous terms are *tha-ful, tu-ful, ta-fad* Nicobar; *shauk Kyeng; sau'* (abrupt accent for *k*) Anam. The Nicobar term may be composed of *tha 5* (from *thanu*) and *fu'*, *fud*, which should represent 1. A similar term for 1 does not exist in the Indian, Ultraindian or Asonesian province, save in the Egypto-African *wotu, uotu, motu &c.* but in the latter it is used for 10 (i. e. *one tale*). It is probable therefore that *ful* is a Mon-Anam binary term formed flexionally from *pun, fun, 4*. *Tha* may either be from the previous term on the repetitive principle, or it may be the Mon-Anam prefix. *Shauk, sau'* has a deceptive appearance of affinity with a wide spread African, Iranian, Caucasian and N. Asian term, the final of which is generally *t*. African, *shita, sita, seda &c;*; Semitic *shat, hat; Ugr, chut, hat; Iranian shash, sechs, six*. But it is merely one of the numerous variations which the Tibetan root undergoes. The original may have been the sibilant *thauk* or *thuk*. The Rakhoing *khrauk* preserves the broad vowel.

### Seven.

Mon, *ka-bok; Ka, pah; Anam, bei*. This term is a flexion of 2 (the word for 5 being omitted, as it is in most of the other formations). I have already mentioned that most of the Ultraindian and Himalayan languages adhere to the Mon-Anam quinary principle in forming the term for 7, and that a large number of them indicate the commencement of the higher series of numbers, or those above 5, by the prefix (generally *ta, ka*). Lepcha preserves *ka* in all the terms from 6 to 10; and Kiranti, which, in its word for 2 (*ka-sat*), retains an ancient root which reappears in other languages in terms for 4 and 8 (*i-sat* Namsang Naga), has another archaic term in *bhag-ya, 7*, which is evidently the Mon *bok*. The Nicobar *sat* might appear to be Hindi, but as the Nancowry dialect has *ha-kiat*, which resembles the Lau form of the Chinese term (*chiat*),

sat is probably Chinese also. The Chinese root is very widely spread (Ugrian, Iranian, African &c.)

Ind. *i-ya*, *e-ia*, *i-air* Kol; *a-ya*, *a-iaah*, Gond. (Some Kol dialects have taken Hindi terms). This is the Dravirian *e* (*e-zha*, *e-l*, *ye-du* &c.)

### *Eight.*

Ind. *iral*, *irl-ia* Kol; *ilhar*, *elar-ia*, Gond. This term appears to be an archaic binary one, a flexion or reduplication of the Dravirian 2, *ir*, and to be related to that for 9 and 10, as in the Dravirian system.

In some of the Ultraindian and Himalayan languages the term for 8 is a similar flexion of the ancient Mon-Anam root in *r* for 2 or 4. It is found in the Yuma group and the Nicobars,—*rai-kar* Bouggu; *rae* Kuki; *prah* Kasia; *awera*, Car-Nicob.; Kiranti, *re ya*; Murmi, Gurung pre (comp 4, *re*, *pli*, &c.)

The other prevalent terms appear to have been adopted from the Chinese. The Mon *ka-cham*, *Ka* and *Anam tam*, appears to be the Chino-Tibetan *sum*, *tum*, *tham* 3 (5, 3) on the same principle that 7 is 2 (5, 2) in many of the Ultraindian and Himalayan languages. The Burmese *shit*, *si*, Chong *ka-ti*, Kyeng *shut*, Singpho *ma-tsai*, Naga *cheth*, *chet*, *chuth*, *chat*, *sat*, *sep*, *te*, *tha*, Garo *chet*, probably involve a misapplication of the Chinese term for 7, *ch'hit*, *ch'het*, *sit*, *thet*, *tshih*. The Abor-Miri *pu-nit-ko*, Miri *piuye*, Daphla *plag-nag* are 4, 2. Binary terms for 8 appear to have formed the limit or highest number of the scale at one time, for they have been applied to 10 and even 100 [See *Ten*.]

### *Nine.*

Mon, *ka-chit*; *Ka*, *chin*; *Anam chin*; *Karen chi*. This is the Chinese 1, i. e. 1 short of 10, as in Dravirian and Mikir. The Chong *ka-sar* is peculiar. It is perhaps from the Chino-Tib. *san* 3.

Ind.—*ar-aa*, *ar-e*, *ar-he*, *ar-aiak*. Although *ar* is apparently a flexion of the *ir* of 8, which is 2, it is probable that it represents 1, as in the Dravirian terms. In the Male *or-t*, 1, the Drav. on takes a vibratory form, and in Tuluva the common term for 9, *om-bodo* (i. e. 1, 10), takes or as a pref. (*oram-bu*).

### *Ten.*

Ind.—*gelea*, *gel* Kol, *gulea*, *gil*, Gond. The Angami and Mozoma-Angami *kerr*, *kurr* resembles *gel*. *Kefr* is evidently a derivative from the Naga *thelu*, *taru* &c. The only analogous foreign form appears to be the Chukchi *kulle*, and both are connected with African terms for 1 (*kulle*, *Sokko* &c.) *Hissi*, 20, is evidently the Hindi *bis*, the commutation of the labials and the aspirate being easy and common.

In several of the Ultraindian languages the African root for 2 in *r*, which enters both into the Dravirian and Mon-Anam systems, reappears in higher numbers, as in African languages, a consequence of the ultimate binary basis. *Rae* Bongzu *rae*, *Kuki* is 8, in Chong it is 10, in Lau and Kambojan it is 100 (*roa*, *roe* K., *noi*, *hoe* L.) In other languages also it is used for 10. It appears in the Anam *mare*, Naga *taru*, *tarah*, *helu*, *kerr*, *kurr*, and *Kumi ho-re* 10. With these compare the Burmese *tar-taya*, *Karen taraya*, *Mikir phar* 100. [The Nancowry *lam* 10, *Ka dam*, *Anam tam*, *Mon klom*, 100, appear to be formed from 5, *nam*, *lam*, *ram*, or from 8, *tam*, *Anam*, *Ka*.] As a connection between 8 and 10 or 100 exists in the case of *rai*, and is also remarked in the Tibetan and Chinese systems, the latter is probably the true

derivation. In the Namsang Naga, which uses the Chinese *chi* for 10, the ancient term is retained in 20 and the higher terms. 20 *rukngi* (10, 2). 30 *rukram* (10, 3). The *ak* is probably a connective like *ka* in the Khari *tarahonei*, 12, (10, 2). *tarahasam*, 13, (10, 3). In Khari and Angami *ra* occurs, following the lower number, Khari, 30, *samrah*, (3, 10), 40, *lirah*, (4, 10); Angami, 30, *seri*, (3, 10, in this dialect *sa* becomes *she*), 40 *lhida*, 50 *rhupengu* (10, 5). Mozome-Angami, 30 *surr*, 40 *lhida*, 50 *ripangu*. *Ra* also enters into the terms for 100 in some of the Naga dialects, — *rafru* Nagaung, *rukrah* Khari, contracted to *kra*, *kre* in Angami and M. Angami. Some of the Yuma dialects also preserve it. Bongju, 20 *rubu-kar* (10, 2, the term for 2 being Mon-Anam *also*.) The Abor-Miri has no trace of this term, but in Dophla it maintains its place throughout, 10 *rang*, 11 *rang-la-akin* (10 and 1) &c., 20 *rang-chang*. In Bodo, Dhimal and the Nipal languages I do not remark any trace of it. In Garo it occurs in the Mikir form for 20, *rung*. The Arianised Gangetic languages possibly retain it in the numbers between 1) and 20, e. g. 11 *ega-ra*, 12 *ba-ra* (in which *ba* may be Mon-Anam\*) 13 *te-ra* &c. With these comp. the Sanskrit *eka-dushan*, *dwa-dushan*, *trayo-dashan*.

In several of the Kumi dialects the Mon and Kasia *sun*, *san*, 5, reappears as 10, — Kuki, *sun-ka*, *sum-ka*; Car Nicobar, *sum*; Longju *tsur-kar*; Kyau, *tehuom*; so Kumi, 100, *tehun wai-re*.

In most of the Naga dialects 20 appears to have partially retained a Mon-Anam character. The terms are *ma-chi*, *ma-tsu*, *tha*, *isa*, *cha*, *ma-khi*, *me-ku*, *ma-ku*, in which, *cha*, *tha* &c. are the Tibetan “*ten*.” In Namsang *cha* is also used for 100, *cha-the*. In the terms for 20, *ma* must stand for “two,” that is, it is the Mon-Anam *na*, *ba* &c., 2. This is confirmed by the Mon *ba-chi*, Chong bar-se, *Ka bar-chit*, all signifying “two-ten.” The Kambojan *ma-pai* is a similar term, but the use of *pai* for 10 is anomalous; it be the Kamb. *bai*, 3. It may be connected with *rai*, *hai*, Mon-Anam flexions of 2, but it is more likely to be a form of “one,” Kasia *wei*. It is very remarkable that the same term appears to be preserved in the Murni 10, *chawai* (one-ten), and in the thence derived Sunwar 100, *swai-ka* (hundred-one). In Kumi it occurs in *tehun wai-re*, 100, in which *tehun* and *re* both represent 10; from 40 to 90, *wi* is used for 10, and it is probably a contraction of *wai*. In some of the Murni numbers 10-kol is used for 20 or “score.” It is evidently connected with the Naga and Mon-Anam *ma-ku*, *ba-chi* &c. It may be inferred from this that the Lepcha and Lhopa *kha*, *khe*, “score” are fragments of similar terms, the prefix for “ten” having come to represent “twenty,” like the corresponding *cha* &c. in some of the Naga dialects. The anomalous *sau*, 20, of the northern Lau dialects (Lau, Ahom &c.) is probably a variation of the same Naga form. The purer Siamese retains the Chinese term *ye sip* (2, 10).

In four of the Naga dialects the term for 10 is *ban*, *pan*, which is probably from *banga*, *pangu* &c. (Kumi *pang*, Mikir *phong*).† The Kasia

\* Bopp derives *ba* from the Arian *dwa*, and *ra*, *re* from the Arian *dasha*, *deka* (Comp. Gram § 319). The contraction of *dasha* into *da* is not improbable, and the conversion of *da* into *r* would be easy.

† It may be connected with the Chinese *wan* or *ban*, “ten thousand”, originally the highest simple term of their system, and which the Manchus have appropriated to 1,000 *wuwan*.

shi-pon appends the same word to the Chinese shi. The Limbu thi-bong appears to be directly derived from the Kasia erin. In both systems hon &c. represents 10 in the higher numbers, 20 Kasia ar phon (2, 10), Limb ni bong; 30 K lai pon, L. som bong. Kasia continues to use pon in the terms above 30, but Limbu discards it and adopts gip which is the Kiranti kip, 10, the Mikir variety of the Chinese culp. Kami has also pong in 20 and the higher numbers.

## B.

### COMPARATIVE VOCABULARY OF MISCELLANEOUS WORDS OF THE

#### MON-ANAM FORMATION.

In the following list of Mon-Anam words I include all that are found in the Ultraiudian languages that remain prepositional. But a considerable number are Chinese more than Ultraiudian, and many do not belong to any glossarial formation that has predominated in Ultraiudia. Several have also been derived by the Mon-Anam from the Tibeto-Ultraiudian vocabularies. On the other hand, many words, widely diffuse in the N. Ultraiudian and Gangetic languages, that do not appear in this list, probably belonged originally to the prepositional formation, and have been lost in the progress of those changes to which all glossaries are subject.

#### I Air.

a. An hoi ("wind" jo); Kol hoio, hoye, hoyoh.

Ar. hawa; Mong ahur; Tib. ahur ("wind"). Abor asar, "wind"; Bengali swar; Burm. hong si w. *Af.*—Danak. haha, hahaito &c. w.; Dlin soueta w., Maigasi isoute, isoute w.; Malg.—Asones angine, ange, angin, hangin &c. w. *Ason.*—Kyan ba-hoie, Pol. sau (emetic, Malag.).

b. Kamb. akas; Manipuri masn, masi, m. chia, m. rui, dung-sit; Sunw. pha-se, Milch. hash. (Root probably *as, ash, hash, si, su, si, shi, thi se* &c.)

Jap. kase; Fin gaiso, aiseb; Persian, Turk. yosi, awasy; Ug. wes-ses; Mong. Tib. asur, (Abor asar); Samoid. masi, bursi, barshi &c. w. The Ultraiudo-Himalayan root is evidently *as, sa, &c.* and identical with *a.*, but in some of the above Mid-Asian terms *si* &c. may be merely the def. postfixed to other wide spread roots. It occurs in numerous other Asiatic and African terms, combined with formatives or with other roots. It appears to be radically identical with the preceding term, (*a.*). In the Kambojan form, the vowel of the pref. has been euphonically transposed, *ak-as* for *ka-as* or *ka-sa*. *Ason.*—Wugi asa', Kude, Solor as. Pol. sau, (Bajo srua, Pagai rusa.)

c. Mon kya, kia (also "wind"); Nag. tikhe; Goud koyo w. [*? Kol hoyo*]. Comp. Drav.

Mong. kei w. (See Drav.). *Ason.*—(See Drav.)

d. Mon, bloei; (An. "Sky").

San-k. vata, Beng. batas, Europ. ventus &c., Hind. bad, Bod. bar, Gar. bal; Ug. wire, wot, wat, Sam bar-shi &c.; Korea paron, pharan; Kamch. epulud &c. (Manipuri pharra &c.). *Af.*—Sech. m.aro. *Ason.*—("wind") Binua barua, Meri bernai, Celebes pui, pori, New Guin. worrei, Aust. porowu, mailo, boran, wiri-nguma, padru; Sabimb. badi, Kag. padak (Drav. *c.*, *a*)

e. Lau lom, Gare lam par (See T. U. lung &c.; Drav. *b.*)

2. *Ant.*

*a.* An. kin, Kas. *ka dakin*, Singp. *gagin*.  
(? Singhal. kumbi); *Ason*.—Taraw. kino, Ach. kimo, Sumba kama-ula, Kis. ugama, Timor kuva.

*b.* Lau mot, mut, puak; Kamb. *sar-muit*; Mon *sa-mot*, *kha-mwot*; Dhim. *nha mui*, Kol mui, mue; New. imo; Male pok; Ur. poh (Lau.)  
(? Sindh *makoro*); *Ason*.—Mal, Indon. *samut* (Mon.), Binua pas, ipos.

3. *Arrow.*

*a.* An. ten, Ka tong, Manip. than, the; Nag. *latchan*, *lasang*, *lusang*, *lahan*; Siam lak-soa, Mik. thol, Kayan thar, Kam, tai; Limbu tooq, Lepch. chong.

Yenesei tem, tum &c.; Tungus. *sir-dan*, Sam. *changa*, Mong. *somu*, *chomu*, *suzun*; Chin. ten *chì*, Sam. *tise*; Beng. Hind. *tir* (Manip. *tel*). [The roots in *k* are probably identical with those in *t*, *ch*, *s*. Chin.-chi-an, dian, &c.; Lau kong; Sindh. kan (arrow); Asam kanr, (arr.); Drav. kanei, (arr.); Mon knya, kon, tanga). The same root is used for "bow" in many languages,—Lau tanu, thanu, Ka tongah, Kamb. ting, Mon tanga, tangah krang, Singp. ndan, Pali tanu, Singh. danni, Beng. Hind. dhanuk.]  
*Ason*.—Bis. odong, odiong, Bin. Mal. &c. damak, dama, Bin lamaka, (but this form may be connected with the Semitic rama), Jav. kandewa (bow). The Malagasi pana, fana &c. has kept its ground in most of the Niha-Polynesian vocabularies.

*b.* Mon. lay, leou, Kamb. *piruen* (See T. U.)

*Ason*.—Pagai rorou.

*c.* Kas. *ka knam* (prob. *a*.—kam from kan, with the initial nasalised).

4. *Bird.*

*a.* An. chim, Mon sin ngat, *kachim*, Kas. *ka sim*; Gond (Gawil) *sim*; Silong sisom; Nic. ihum (? Kol. chene, Kir. chongwa, Sunw. chiwa, Bodo don-chen) [See T. U.]

Ch. chio, chiau; Mong. *sibechu*, *shobon*, *shobo* &c. Sam. *tschunds-chiacha*, Koriak *atschel*, Aino *tschipkar*, Arm. *trshun*, Sansk. *porchi*.  
*Af*.—Saumali *shim-bir*, Galla *sim-bira* &c. *Ason*.—Binua chim; (? Mad. acham).

*b.* Kamb. *sat*; (prob. T. U. *sa* &c., with a Kamb. consonantal final.)

*c.* Lau nok, nuk, naut, Burm. *nghak*, *nger*, Kapwi *nghet*, Marmā naga, Urao orak. In Abor-Miri it is preserved in *rok pi* "bird's-egg", both word being Vindyan.

*E.* Cauc. angko, anko, anako, woenucho, aka-onoch, anakwi; Sansk. *beyanggo*, *bihanga*; [Malayu &c. *anggas*, *angkas*], *Af*.—luko, Galla ("fowl"). *Ason*.—Niha-Pol. (common), *manuk*, *manu*, *manuko* [Cauc. *woenuko*] &c., N. Austral. *aluk*, *lukaluk*, &c. (? Galla). The great prevalence of this term in the Indo-Pacific vocabularies and the prefix *ma*, render it probable that it existed in the Naga-Manipuri and allied dialects before it was displaced by the Tibetan *vo*, *sa* &c.

[It is not probable that a root for "bird" is peculiar on the Aso-European Continent to the E. Caucasian group on the one side, and to Lau and a few other adjacent languages on the other. Is it evidently connected with the almost universal root for "duck" Tangus. *niki*, Mong. *nugusun*, *nogò-su*, Turk. *urak* (Urao, orak "bird") *urdek*, *urtuk* &c., Pashtu *ordek*, Ug. *batta*, *wase*, *wasig*, &c. (*t*, *s* for *d*, *r*, *n*); *E. Afr.* *bitak*; *Ind.*—*batak*, *buduk* &c.; Arab *bato*; Span. *pato*; Indones. *itek*, *ite*, *itik*, *iti* &c. (Gond, *itte*, "bird"); Eng. *duck* &c. &c.]

5. *Blood*

a. An. man; ? Kol myun. [<sup>?</sup> Ugr. male, wuor-ak, wyar, urr, ver &c. K riak mol yo mol, Korea ko mo; Afr Shang. mohha]

Ason.—Simang, Binua, maham, mohom [<sup>?</sup> Zend. wohone], Kis, meang (Kol). Torres St man; Austral koinara (Korea.)

b. An. tiet (Chinese).

c. K. chium, Mou chim, Kar. thwi, Yuma ti, thwe, si, thi, bi, i, sai, chui, Koring tazai, Jili tasai, Garo chi, Dhim. hiki, Deor. t h. chui, Bo t. thoi, Tiberk. shui, New. hi, Limb. makhi, Lepch vi, Chep. wi, Changl vi, Sunw. usi; Mag. hyu, Kir. hau, ? Male kesu.

(Lin. chine. hint, hue, he', Japan tschi, zi, Aino. kin; Tungus. ser-yi, shonia, Turk chan, kan, yon &c. Circass. cha, M. j-ei, zi jioh; Ain. an-un, Lat. sanguis. Afr.—Malagasi razana, zanaa &c. Ason.—Simang cheong, Bin. za, zais.

d. Lau leut, lut, let.

Kashm., Sindhi, rat. Tamil ratam &c., Sansk. rudira, Drav. udiram neturn. Ason.—Sunda let, N. Austral. elod.

e. Kas. suam (?a Kol; but probably sam (c.) with the initial nasalised.)

6. *Beat*.

a. An. ding, chi liuang, Kas. liing (See T. U. and Drav.)

b. K. tuk, tup, tuuit, Chong dok, Ka duak (T. U. and Drav. thu, o'a, donga &c. with a Kamb. consonantal final).

Ason.—haruk Kayan [Naga surung, Abor hulung]; bid k Bajo, Pasir.

c. M. kleng, galon, Naga lung, long &c. (See T. U.). Lung is connected with the slender Burman form lbe.

d. L. reua, ru, heu, hu (See T. U., Mishmi, rua &c.)

7. *Bone*.

a. An. shung, Chiang, K. cha'ang, Mon. tsu, Deor Ch pichen, Kas. shing, Kol pang, Ur. Maie kochal, Kirant. sai-ba, Limb. sa. -tt.

Tunk. shon a, syemjok, suuk, suk &c.; Jap. hone; Iran. os, asthi, &c.

Ason.—im. ji'is, Bin. jahang (Kol), Tobi chil (Male, Ur.), Pol. sui, hui, sivi.

b. Lau duk, nuk, kaduk, (Manip. arukhai, Tib. ruiko, Lhop. rutok &c.)

Cauc. rekka, ratla, rotli &c.

8. *Buffaloe*.

a. An. klong-nuk, Mon. priang, p'en. Mikir chelong, jalang (Khoibu namuk, "cow"); (Changlo brung; Kas. s inreli, Niga le, tali; Manip. lui, iroi, woi-thoi; saloi, alui, aghoi, ngaiui, siui, raiui (See Drav.); K'o cha-lawe

Ason.—bin. Mangk. Wug. tidong, Mandh, Dor. tereng, Ilok. nuang.

b. Kamb. krabo, karbu, kar-lai, Ka kar-pu. Chong. L., khrai, khwai, Bu m. kyue, Kol kara, kera (Drav. The fi al bu, bo is probably the wide spread word for "ox" &c., which, in the Manipuri and Yuma dialects is also used in compounds e.g. (w i-rhoi "buffaloe", woi-tom "cat").

Ason.—Indon. krabui, kripue, karabao, horobau, karbau, kabu, kulu, kebau, kibo &c.



9. *Cat.*

- a. An. m'au, L. miao, meau, Kas. miao, Garo myou [See T. U.]  
 b. K. *china* [Manip. See T. U.]  
 c. M. *pa-khwai* (See Drav.)  
 Korea, koi; A. —Kwib paka.

10. *Cow.*

a. An. bo, bou; Lau woa (T. U. ba, nwa &c.; the amplified vowel is found in the Songpu *woi* prefixed to other words for "cow", "buffaloe" and "elephant" [See Buffaloe])

b. An. sung-krau, Mon kleau, Kar. klo.  
 Drav. akalu, (auc. aka, Hind. goru; Tungus. *hokor*, ukur &c. Fin. *sagar*, iskar &c. Arab. *bagar*.)

c. K. ku, L. ngua, ngo, ngoa, hu, Mon. nua, Burm. ngi, Bhut. ngo, Jili *tanga*. The last term may be connected with some names for the "buffaloe" in adjacent languages,—Naga chang, tyang, Dhim. dia. The Mon nua is evidently the same as the Burman and Karen nwa, which may be the T. U. wa. The Kambojan ku appears to be nearer the Chinese (gu) or Indian (go, gao &c.) forms of the wide spread guttural root.

Ch. ngui, Turk. ona, ina, inak, Magv. uno.

d. M. kwon liban, Kar. wa hing, Rakh. min, Naga man (See T. U.)

e. Kas. masoi, Naga masei, Garo. mashu, Bodo mashujo, Tami. pasu.

Ugr. mus &c. Latin bos (See Drav. b).

11. *Crow.*

a. An. kon-kwa; L. ka, kawa; Dhim. Gond. Kir. Murmi kawa; Limb. alwa; Mund. Bhumij kova

Ka is a com. Drav., Tib., Asiatic and Asonesian root. Sindhi kaw, Kash. kav. Ason.—Bat. Bug. gawo', Tojo gawap, Parig. kau, Pol. kaosa, (Indon. kuwau, kuau, "bird", "pheasant" &c.)

12. *Day.*

[See "Sun"].

13. *Dog.*

a. An., Ka, Chong cho; Kas. ksen, kassen; Naga su, hu, hi, *tasu*, *shetu*, az; Manip. thu, thi, shi, si; Mik. hi; Mrung tchai; Deor. Ch. shi; Bod. choi ma, chi ma, sei ma; Lepch. *kazeu*, Kir. *nochu*, New. *khicha*, Mag. *chhyu*, Sunw. *kuchung*.

Cauc. choi, solhy, hue, he, kechi, chwa, koy, chlah; Sansk. shoa, shoa, Pali su, Arm. shun, Kashm. hun, Germ. hund, Fr. chien &c. &c. Af.—Darl. asa, Fel. hyen. Ason.—Bin. cho, chu, chor; Indon. (com., Achin to Iloko) asu, aso (Naga pref.); acho Kis., aho, Solor. The Balignini *kiching*, Pont. *kisong*, Kand. *kasu*, Komr. *huzo* are more immediately allied to the Kasi Kumuk, Himalayan and Kasia forms. In Malay and some other languages *kuching* is applied to the "cat" (comp. Balig. *kiching*, Sunwar *kuchung* "dog"), while the root takes a different prefix when applied to the dog,—*anjing*; Mairas. *antsing*. In the Sassak *basong*, Koti *basa*, the root takes another of the prefixes common to Ultraiidian and Asonesian languages.

b. Kamb. *chake*, *chike* (prob. T. U., eki Ab., khwe Burm., kai Garo. &c. &c.; but the syllable I have marked as a prefix may be the root a.)

c. Mon kla, kla-au, An. kau (kla is also "tiger" in Mon., Kambojan, Kasia and Kol). See also Cow *b*. It may have been applied as a general term for quadrupeds like *voi*. In Burman it is sometimes so used.

Ugr. koira &c; Cauc. kari; Arab. gelip; Tigre kulbe; Woloff kaila. Ason.—Pasir kolo; Viti koli; Pol. kuli, guli; Taraw. kiri.

d. Lau ma, An. muong, Car Nic. am.

Sam. men, buang, ban &c.; Ugr. pon, amha, amp &c. Cauc. pohu po, pah'; Af.—Suah. mbua, Makua, ampuah; Malag. ambua. Ason.—But. abu; Pani apang; Torres St. umai, oma; Taraw mog. (An.)

#### 14. Ear.

a. An. tai, tei; M. ka twon; Dhim. nha tong.

Tungus. shen, shun. The same nasal form of the root is found in other Tatar languages, in Semitic and in Tibetan. Af.—Galla uthun, Danak. aite. Ason.—Bin. tang, dang; Sim. anting; Butan titiduan; Austr. (Wirad.) uta.

b. K. trichi-it.

c. L. hu; Deor. Ch. ya-ku; Kar. naku, Bod. kho-ma, Limbu nekho. Sam. ku, ko; Ost. ko; Korea kui; Ugrian kuma &c.; Drav. kemē, kari &c. [See Drav.]

d. Kas. skor; S. Tangk. nakor; Garo. machor; Mishmi. nakru.

Yenesei kologan &c. Turk. kuluk, klak &c., Fin korw, Sansk. karna. Georg. kuri. Af.—Galla gura, guru; Saum. deygur. Ason.—Torres St., Aust. kura, kure, guri, kowra, gerip, karusa. Aru takar. [See Drav.]

#### 15. Earth.

a. An. det; L. prathet; K. deiye; Mon te, tse; Kas., ka kan-deu; Kyen teit; Simang te'; Kol ot, ote, wathe; Gond otai; Maram ntha; Songju kandi (Kas.); Koreng. kudi.

Chin. tho, tei &c.; Aino tui; Korea ta-ti.

b. L. din, nin, phen din, (? a. from the forms in di, or? Drav. nil, nel.)

c. L. muang; Abor. among.

Ugr. mua, ma, myo, mag, &c. Cauc. mau.

#### 16. Egg.

a. An. krung; L. khrai, khai; Manip. yerum, haru;? Kas. ka pa-leng; Magar rhu; Silong kloen;? Male kir-pan.

Korea ar, ol. Ason.—Buner. kurau; Tojo krau (but? from tura Kand., tulū, Komr., atuli Malagasi); Pol. kali (? N. Ultr. koni, As &c.)

b. An. ting (N. Ultr., Chinese; Sansk. dim.)

c. K. pung, M. khapa, Koreng pabum, Murmi, phum, Gurung, phung, Sunw. baphu, Abor-Mir. apu, apiu, rok-pi, ("bird-egg"), Aka papuk, Dophla pupu, Male, kirpan, Kol pitu, pito, bi, bili. The Kol terms are from the D-avirian vitu &c. "seed", the root vi, bi, being widely spread,—bichi, bihan, vihi, bini &c. The primary meaning seems to have been "stone",—Samoide pi, pui, pai &c., Bisharye owi, Kamchat. uwatschi, uwatin, weche, Tungus. weche (comp. biji, binji &c. "see!"), Chuk. ui-gam, Koriak wu-gun, and the Indo-European, African and Australian pa-thar, va-tu ba-kir, &c. &c. The Abor-miri pi, piu, pu, appear, like rok "owl" in rok-pi [see "Bird"] to be derived from the Dravirian, which has also the form mu-tu (S. Drav.) The other Gangetico-Ultraindian forms appear, in their turn, to be the modified Abor-Dophla pu, with guttural and nasal finals,—puk, pum, bum, pung.

Lat. ovum, Hind. baiza; Arab. bilk. Ason.—Tarawa bui, Pol foi.

### 17 Elephant.

a. An. woi; Songpu woi-pong (woi in Songp. is also a prefix in the names for "cow" and "buffaloe") Champ. plo-bi, Luh. ma-vu, N. Tungk ma-phu, Singph. mog-wi, Kyen. nwi, mui, Bodo moi-gedet. [The term is evidently a modification of that for "cow", nwa, wo, pai &c. used also generically for quadrupeds in many of the Ultraiindian languages]

b. K. tamrai, dumre, Ka ruai, Chong kanai, Kas ingnar, Dhimal naria. Tam, dum may be connected with the Tibeto-Ul lang, lam and the be-ram of the Malay Peninsula (Binua, Malay), or it may be merely the def. pref. which sometimes takes a final m euphonically. The rai, nai, re, is Drav.,—alia, Singhal, anei, Tamil &c. It is also found in Burm. ane, ne, nin, Kyau ni, Kum, kni. The Tamil kaliru is probably from the Sansk. karin.

c. Mon shen, tsin, chuein; Lau tsang, chang, tyang (T. U. and Chinese.)

### 18. Eye.

a. A., Ka, Chong mat, Mon mot, pamot, mwot; Kas. ka kamat; T. U. mik &c, Manip mit, amak &c, Garo. makar, makron; Bod. mogon, Kiranti mak, Kol. met, med, Rakh. myat-si.

Chin mok, ma' (=mak), bak, mu. [See Drav]. Ason.—The broad form which appears to have prevailed in the Mon-Anam languages, and to have been disseminated eastward (Garo, Kiranti), has a very wide range in Asonesia. In the Nankowry almat and in the Simang and Binua mat, met, it preserves the Ultraiindian monosyllabic form, but in the harmonic insular languages the common form is mata (Nias to Polynesia). Variations similar to the Continental also occur, e g, baka Tilanj, maka Hawaii.

b. K. pene' or penek, panek, Laos paned; Nag.—Tengs. tenyk, Khar. tenik, Nag. tenok; Abor, Aka nyek, Doph nyuk These forms are evidently variations of the slender form of the Chin—Tib.—Ult. root, a (Tib. mik, Mikir mek, Kol. met, ned, Kyau meet).

c. Siamese netr.

Pali, Bengali netra, Sansk. netram, netro; Af.—Tumali nget. These forms, as well as ank, ak, ek, kan &c appear to be referable, with a. and b., to one primary root. The immediate derivation or connection is obscure.

### 19. Father.

a. A. thei, sha, cha, K. ta, Bin. zaza, Car. Nic. chew. (Drav. o-chocham).

Chin. tia; Sam. esya, eche, ese. Jap. Ugr Turk. &c. have similar terms, and it is also Semitic, ais Gara. (comp. asio Turk) In the Sansk. pi-ta, (pi-tr) &c.), ma-ta, and the corresponding pa-ter, ma-ter, fa-ther, mo-ther &c, ta &c. may be this root, unless it is merely a definitive. The combination is Scythic &c., bate Perm, (abate Amharic), abeda Sam, apatsch Kamsch. In the pure dental form, of which the sibian is simply a variation, it is almost universally distributed [See Drav]. The Turkish and Ugrian atei appears to be the closest of the numerous Mid.-Asian forms to the Anam. Ason.—Bis. tatei, totai. [These are Ugrian forms, tatei, Wolga; atei of Wolga and Turkish is a contraction of this. The full reduplicated form is also found the Fin, tuata,

tato, and in the Iranian tata, dada, dad &c]. Rotum. utha, Pol. tua, *marua* (also "old", "chief" &c in many Niha-Polynesian vocabularies). 'Iama, tuama, sama, yama, occurs in Borneo, Celebesian and Polynesian vocabularies. The Millejima, Trusan tiba, appears to be a variation of it.

b. An pu, Kamb apuk, Champa pak, (Ka bap). M bah kba, Lau po, Kas ukapa, (T. U. but also universally prevalent. The Aham and Lau pu, po, may be ultimately from the Chinese fu, hu, pe, but they seem to be more immediately derived from the Naga-Manipuri forms.)

## 20. Fire.

a. A. lua, lia, K pilung, plung, Chong pleu.

Ugr tuli, tol, tul, ule, ulga; Pashtu or. Ason—Erub ura, Rotum. re, Bunerati loh-kapi (a double word); Goront. tulu, Kawi, Krom. lotu, Viti ngatu, Niha alita; Magind. klaiu, Bis kalayo. Bali jini, Sumba jalo, North Australian ("hot") ajalti, ojelli, ojena. The Bali appears to be a modification of the Arian agni, agun, &c, and the Sumba and Australian of the Arian jual, cal, chal, &c, which is also Ugrian, zhar, shal-gim &c.

b. M ka-miot, ka-met, ta-mat, ta-mot; Car. Nic. tomoi-chu. This term is probably of T U origin through the Kumi ma-i, ma-it (the root, common to the T U. and Chinese, being me, mi, fo, fua &c.) Suahili has moto and Malagasi mote. The Bodo wat appears to be a variation of the Mon mat.

c. L tai, Manip Dialects (throughout) mai. This appears to be also of Kumi origin, ma-i [For the Asiatic and African affinities see T U] The allied Asonesian terms appear partly to follow the Malagasi (afu, afe) and partly the Manipuri and Kumi. The principal are afu, aie, ape, api, apue, apoi, apui, moi. As the Kumi and Mon both retain the T. U. m, and forms in m are almost absent in Asonesia, (m-i Masid, from poi, foi, is an exception), it is probable that the Malagasi form was the origin of a l the allied Asonesian ones, and that the Ultraindian influence on the term was merely phonetic, producing the amplification of the final vowel.

d. Kas ding. This term is peculiar, unless it is a variation of the Kol sing, sing-il (Fire, Sun, Day).

## 21. Fish.

a. A. pha, M., Car Nic., Binua ka; Kas ka dokha, Mik. ok, Manip. kha, khai, kht, Mish ta, Kol haku. (T. U. nga &c). Ason. Niha—Pol (com) ika, ikan.

b. K trau, trei, trai, Ka tre (? Murmi tar-nya); b, c and d may all have a common root, :a, lau &c.

c. Chong mel (Drav. min).

d. L pla, pa.

Turk paio, balok &c, Jap. awo, iwo. Af.—Mak. apa, Malag. fia, pia, Dart. fuu. A n—Indon. ewa, ibah, ibang, be, bei, ampa, wapi, bau; Pol. ma.olo, Boni bilei, Dore bille.

## 22. Flower.

a. A. hua (Ch hua)

b. K. pika, M. kao, kounq.

c. L dok-mai, dok, bok, mok, Tib. Him men-dok.

d. Kas. sintin (sin is probably a prefixed definitive.)

## 23 Foot.

*a.* A. chen, kang-shun, K. chong, M. chang, Kar khong, Mrung yakong, Naga *ta-thang*, *ta-tsung*, Bodo atheng, Doingnak teng, Lepcha *diang-liak*, Lau tin Sim chan. [Tib. kang].

Drav. kal. Chin. kha. *Ason*—Tobi chem. The Lau tin may be connected with the Dravirian adi, Saumali adin, Indonesian and Australian *dēna*, *dina*, *tina* &c.

*b.* Kas kajat, (prob Drav *kazhal* &c.)

*Ason*.—Kand. *kacha'* (= *kachak*), Pont. *kaja*, Kayan *kasa* [See Drav. *a.*]

The root common to *a* and *b*, *ka*, *cha* &c. has a very wide range, See *TIB.*, *DRAV.*

## 24 Goat.

*a.* A. ye (Chin yeo).

*b.* K. pope, L. pe, M. Ka bai, Burm. mai, Singph. bai-mau, Naga *na-bung*, Abor *sha-ben*, Manip. D. *ka-men*, Mikir be, bi, Manip. D. *me*, mi, *kami*, *amu*.

*Af*—Shang. mea, Egypt. ba. *Ason*.—Indon. *ambe*, *imbe*, *be*, *bebe*, *bembe*, *bimi*, *kabimbi*, *kambing* &c.

*c.* Kas. *ka blang*, Garo purun, Bodo bar-ma, Manip. D. *klang*, (? Tib. ra, Semitic *aron*, Africa illa &c)

## 25 Hair.

*a.* A. tau', Kar. thu (see *c*)

Chin. thau mo &c, (thau is "head"),

*b.* A. long, Kyen lu

Aino ruh, Arm. law. *Ason*.—Pagai oli, Ut. uiri, Tar. ira, Pol. lau, ulu (Indon. &c, ulu, "head"); Wirad. uran; Kayang inang.

*c.* K. sok, M. sok, thwot; Binua sok. Probably from the Ultraindo-Himalayan song. som &c. and Tib. sha, which again are connected with the Mongol *usun*, Turkish *asim*. *Ason*.—Tobi chim.

*d.* L. phom, phrum, Tib. pu (a wide spread root).

*e.* Kas. shnin. If sh is part of the root, it is probably a modification of the T. U. othwon, thung, sam &c. If the sibilant is a prefix, the root may be connected with the Naga min, Garo *kaman*, Bodo *khomon*.

## 26 Hand

*a.* A. tai Ka dei, M. tai, tway, Kas. *ka kti*, Bod. *akhai*, Manip. D. *akhui*, kuit, kheut, Nag. *tekha*, *tekhat*, dok, Bongju kut, Kyau kuet, Chepang kut-*pa*, Sunw. gur (Manip.) Milch. got, god, Dhim. khur, Kol. *chi*, tihi, Mishmi ataa, Gond. *kaik*, Drav. *kai*,

Ugrian *kat*, *ket*, *kez*, *kata*, *kede*, Turk. *kol*, *kul*, chol, Mong. *gar*, *char*, Tungus. *gala*, Sanskrit *gara*, Cauc. *kuer*, Sindhi *kur*; Jap. *te*, Sam. *oda*, Ugr. *uda*, Kashm. *athu*, Gara. *it*, Tigre *id*; *Ason*—Bin. *ti*, *thi* (Kas. Kol) *kokot*, *kokut* (Yuma, Manipuri), Meri *ta'akin*, Viti *thaka* Erub tag (Naga *tekha*, *dak*.)

*b.* L. mu; Kir. *moa*, Gur. *moi*.

*Ason*.—Sas. *ama*, Samb. *Kis ima*, Peel R. *ma*, Trus. *bai*, *pai*.

## 27 Head.

*a.* A. du, dau (Chin. tau), Ka tuwi (? Chong *tos*), L. ru, ho, *hoa*, Yuma lu, hlu, Manipuri D. lu, olu (The Bodo *koro*, *kharo*, Mishmi

mkoro, Gur. kra, appears to be connected with the Kashmiri kala "head", and Tibetan kra, "hair". The Simang kala is more likely to be a contraction of the Malay kapala).

*Af.*—Fazog. Kam. alo, Agau our, Malagasi loha, lua, [Singhalese olua.] *Ason*—Niha—Pol. (com.) ulu.

*b.* K. kabal (Sansk. kapala.)

*c.* M. kadap, ka-touk, Silong atak (T. U.)

*d.* Kas. ka kli or kli (? li, a modification of lu a.; ? Dhim. puring = pu-ring.)

*Ason.*—Aru guli.

## 28 Hog.

*a.* A. heu, heo (? from hok, Manip., ? Bodo voma, Dhim. paya.)

*b.* K. chrok, cheruk, Ka chur, Chong charuk, Mon klut, kaleik; If the Kambojan forms are distinct from the Mon, they are probably from the Pali sukra by inversion (Comp. also the Pashtu sarkaza; *Ason*—Jav. cheleng, Viti: sara).

*c.* L. mu (? Bod. yoma), Lepch. mon, Sunw. po, Singphu wu. (Probably a contraction of the T. U. wak, pak, vak &c.)

*d.* Kas. sniang.

## 29 Horn.

*a.* A. sung, sing, K. suning (? Kar. chu-nong) Kir. wsanga, Indian sing, shinga &c. (Sansk. shringa.)

*Ason.*—Kawi songo, Kr. singat, Bis. sungai.

*b.* M. kreang, greang, Kas. ka-reng (T. U.)

*c.* L. khau, Burm. khyo, Nag. po-khye, Aka kung, New ne-ku (Chinese ko &c.)

## 30 Horse.

*a.* A. ngua, nya, Bodo nau, na; Dhim. onhya, Lepch. Limb. on. Ugr. lo, lu &c. *Af.* Agau lu.

*b.* A. ma (Chinese.)

*c.* K. se, Kar. kase, kthe, Kyen tsa, Kyo sha, Kumi ktshi.

Turk. at, ut, Yenes. kut, kus.

*d.* M. kyeh, kya; Burm. kre, krai, Kas. kalai, Bod. korai (Ind. ghora &c.)

## 31 House.

*a.* A. na, ya, dang, Bod. na, Garo nak, Tibet. nang; Kas. ka ting Kuki ting, Gur. tin, Manip. shin, shim &c. [? ee T. U.]

*b.* K. petah, Singp. ata, Dham. cha (? a.)

*c.* M. hien, he, L. reuan, heun, ren; Kar. hi, Mish. hon, Nag. hum, ham (T. U.)

## 32 Iron.

*a.* A. sat (probably from the Chinese thiat.)

*b.* K. dik, dek, L. lik, lek.

Chinese thi' (= thick), thiat &c., het, apan tets; Semitic hadid; *Ason.*—Kayan titi, Solor olokh.

*c.* Ka mam, Chep. Kir. phalum, Vindy. merhan, merhad &c.

*Ason*—Aru omom, Cer. muma, moira, Lobo mumumur [See Drav.]

*d.* Chong rohong, (See Drav. This form may be from the Bengali and Hindi loha.)

*e.* M. pasoe, pothway, Burm. sei, Naga kache, katse (See T. U.)

Chin. thi, Korea soi, suy, Sam. yese bese, basa, Sansk. ayas, Germ. eisen, Lat æs (T. U.) *Ason*.— hampa basai, Ach. basue, Bis. Pani puthao, Magind. putau; Goront. uol watai [Champa basai], Tobipishu, N. Cal. pibisu, Maori mairai [Celebesian watai]. The prevalent Indonesian form is the curt besi. *bisi*, which is less close to the Mon than the preceding forms, and has thus the appearance of reverting to the samoiede form *bese* &c.

*f.* Kas. unar New. na (? Drav. with the pref. n).

### 33 Leaf.

*a.* A. la, M. kana (T. U.; Drav; Tib. lah-*va*, Bod. lai).

*b.* K. silok (? T. U. a; Burm. rwak) Binua loluk.

*Ason*.—Solololong (Bin.) [*b* is evidently *a* with a nasal, passing into a guttural, terminal].

*c.* L. bai, mau, bou; Nag. am, Kir. ubava.

Ugr. poi, uyba &c., Japan fa, Yeniseian, Yukahiri yipang &c. (pa, ba, enters into many other Asiatic terms). *Ason*.—Kis. awan, Tarawa ba, Erub. papeh.

### 34 Light.

*a.* A. rang sang, L. leng, Burm. lang, len, Bod. shrang churang, Garo klang, Nams. Naga rangro Muth', Jobok. rangai [See "Air", "Sky"].

Turk. arak [See "Air", "Sky"] *Ason*.—Indon com. trang terang, &c. Pol. tua-rama, rama, lama, malama, Onin, Mille maram, (? Kayan mala)

*b.* K. plo, Gurung bhla Kir. ulava (? Drav. Vindy aveli, bela, &c; probably the root *a* without the nasal terminal and with the labial prefix). *Ason*.—? Kayan mala, Kah. balawa (Kirant).

*c.* M. papiya; ? Abor. piuang, Kar. kpa.

*Ason*.—Niha upi; ? Passer piniku.

*d.* M. kama, L. sawang, Kumi kuwang, Manip. wan, Kanwi ban, Koreng ben, Champ. Tangk war [See "Air", "Sky", "Sun"].

*Ason*.—Lamp. wawa, Mandh. muwajah, Goront. mobawangu.

*e.* Kas. bashai, Tangk. she, shea, Jili thwe, Singpho ningthoi.

*Ason*.—Mal. Jav. chaya, chahya, Sim. chabai, Bin. chohoy, chupe.

### 35 Man.

*a.* A. ngoe, Kar. knya. (?mi-nyan Nams. Nag; pano. ano, "Son," Angam.)

*b.* K. prus (Pali burnt, Beng. purush, Chep. pursi; a wide spread root; Ugrian weres, pursen, &c. &c.,

*c.* M. karu, kru; Ka kloe, Ohong sam-long, Kar. pra, kloun, Kar. huplong, Burm. lu, (Drav. alu &c.)

Chin. lang, also Seythico-Drav. and African [See Drav]

*Ason*.—(?Syd. kure, Maq. kore, Masid garak. These terms may be modifications of the Indonesian laki with the def. pref., but they have also African and Ugrian affinities; See *d*)

*d.* L. khoni, kun (generic)

Ugr. kom, aika, kuian, kuil &c. (root ku, ko, ka probably), Sam. kum &c. Yukahir kun-shi. *Af*.—Eg. Dal. Shang. ka, Yoruba okhon, Ful. kokor Ser. ukor, Bish. gul-tuk, Shang. gun-za. Agau gul-wa

*Ason*.—Bin. kan-chu; Ach. akam "husband"; [Timor atoni; Pol. kanaka, tangata, kane, tane; Mal. &c. jantan. But these terms appear to

be derived from a distinct Ultraindian form,—*u-tanga* "husband" Mikir, *diang* "man" Dhim &c.; *adam* &c. Semitic, *watau* Ugrian]

e. *L. pu-chai*; *Kum. tchiao*; *N. Tangk. pasa*, *Kas. pensao*, *Silong mesa*; *Bodo bi shai* "husband," *Binua* "husband" *kan chu*.

*Ugr. choi, chu, chum*, *Sam. chasa* [*Aino chogu*, *Chukchi juk*, *Ugr. anchuk*, *Tib. chok-ton*, *Tibberk. chagha* "husband", *Mileh choung-mi*, *Changlo songo* and other allied Gangetico-Ultraindian forms, *Burm. youkya* &c. [connected with other wide spread forms in *s, j, y* and *z*]

*Ason*.—*Sulu usug* (? *Nias ma chua Afr.*)

f. *Kas. man* (*New. Kir. mano, mana*, &c. &c.; a very wide spread root.)

### 36 Monkey.

a. *A. kibi, khi*, *Kol gei*, ? *gar. kau-we* (*s-e e.*)

*Chin. kan. Ason*.—*Parig. uke*, *Sumba kuki*, *Kah. baki*, *Banj. bakue*.

b. *A. wun* (See c, d, e.)

c. *K. sua*; *Limb. sohab*, *Lepch. sabeu*, *Abor. M. sibeh, shiheh*; *M. ka nwe*, *Nag. veh*, *Aka labe*, *Garó kouwe*, *Singph. wae, we, Jili tawe*, (See *Tib.*)

*Ason*.—*Toj. ebo*, *Sul. Tag. amo*, *Magind. ubol, uban*. (*Anan wun*).

d. *L. ling* ("Man", *leng*), *Kas. shri*.

*Ason*.—(? *Baj. siro*, *Pas. siyo* from *Kas. shri*.)

e. *L. wok*, *Rakh. Kapwi myouk*, *Burm. myauk*, *Lunke. Kyen yaung*. The *y* is probably a softening of *r*, in which case the original Burman form would be *mrauk*, with which the *Sunwar moro*, *Mishmi tammi* and *Indonesian brok* are evidently connected.

### 37 Moon.

a. *A. klang, blang*, *L. len, lun* (*T. U*)

b. *K. pichan* (*Pali. Manip. kachang, &c*)

c. *K. ke*, *Chong kang*, *N. Tangk. akha*.

*Ason*.—*Tobi makam*, *Mang. ugam*, *Tar. makainga*. *Ch. gue*, *Ugr. ike, kou* &c.

d. *Ka kot*, *Mon katu*, *kattau, katok*.

*Ch. gud*,

e. *L. tawan* (? *Tib. dawa*), *Kas. banai* [See "Light," "Fire" "Sun."]

*Ason*.—? *Batta kanawan* (the *Lau tawan* with the prefix *ka*.)

### 38 Mother.

a. *A. L. K. me*, *K. mi*, *Ka. mai*, *Kas. ka kami*, *M. mi, mui*, *Binua mui, ambui*, *Sim. baiui*, (*l* for *m*). *Burm. ami, ame*. (Almost universal in different forms, *ma. ba* &c. The form in *u* is *Naga apu*, *Manipuri D. avu*, *aphu* &c.)

*Ason*.—*Sul. mui*, *Mad. ambo*, *Baw. imbo*, *Mal. Jav. &c. ibu*, *Magind. babu*, *Pol. fai*.

b. *K. madei*, *L. manda, mada* (*Pali menda, mata*).

c. *Chong muny* ("father", *kuny*) See a.

### 39 Mountain.

a. *A. nui*, *L. loi, noi, doi, jai*, *Mrung lai*, (*T. U*).

b. *K. pinom, pnom*, *Ka menam*, *Chong nong*, *Simang minum*, *Kar. koe long*, *Manip. kalong* &c. (connected with a, See *T. U*.)

*Ason*.—? *Mang. unang*, ? *Bis. talonan*.

c. *M. tu*, *Burm. taung, tong*, *Jili satong*.



Turk. tu, tau, dag &c. (See T. U.)

*Ason*.—Pol. tua, R. tum, thuang.

d. L. phu khao, M. kha (Chin., Yenisei, Sam.)

#### 40 Mouth.

a. A. meng, Ka boar, M. pan. Manip. D. mamun, chamun, mur &c. Limb mura, Lepch. abong; Naga tabang, Abor napang, Simang ban, Bes. pang.

*Ason*.—Lamp Komr. bango, Sumbu ubana, Solor wowang, Pol. mang, Maori mangai, N. Cal. wangai.

b. K. mat, Maram mathu, New. mhutu, Chep. mothong (root su, thu &c. See c)

*Ason*.—Meri matong, Banj montong, Bunerati, Viti musu.

c. L. pak (probably from paug, a)

d. Chong. raneng, Bhum. alang, Kumi l'haung.

*Ason*.—Mill. langing.

e. Kas. ka shinur, Nag. tun, Garo hatong, Kuki taung, Murmi, Gurung sung.

Ugrian sun, shun &c.

#### 41 Mosquito.

a. A. bang, M. pan; Naga mang-dong, Lepch. mang-kong, Male min-ko.

Ch. bang, mang, bun.

b. A. mui, Asam moh (? from a.)

*Ason*.—Bunerati-wai.

c. K. mus, Gond mi-i, Ur. bhus-endi, Kol bhus-undi, pichu, Ka. ren patso, Binua kamus, New. pati.

Sansk. mashaka, Bengali mosha, Lat. musca &c. The Indonesian agas may be from the Hind. magas, and the latter may be an inversion of the Sansk. But the Tamil kosu, kosuvu, Malayal. kudu, Polynesian kutu, Indonesian kutu ("louse"), throw doubt on this. (See Drav.)

d. L. yung, (probably from sung Abor &c.)

e. L. phreng, (? Aka tarang, Kumi chang-rang &c. T. U.)

#### 42 Name.

(Not included in my Comp. Voc.)

a. A. ten, Kas. ka harteng, ? Kol nutum.

b. L. tsu, chu, Naga achu, Manip. kazyan, hazyun.

#### 43 Night.

a. A. dem, Lau (Ahom) dam, Binua due.

Turk. ten, tun, tin &c., Koriak ten-kiti; Tungus. dol-boni &c., Yenisei thol, Ugr. oti, at, &c. *Ason*.—Sulu duum, Buner. tiutu; (? Jav. dalu, dalam).

b. K. juk.

Ugr. jig, jugum, ji, jot, Yenesei shig, sai, &c., Mong. chei, so &c., Aino asi, Chin. jit-am, jia.

c. L. khun; Tib. ghanmo (T. U.)

d. Kas. ka miet, ? Manip. mea, maya, Male make.

Sam. pitn, pin, po, &c.; Af. Amh. mata; *Ason*.—Kis. matang, Sav. meda, Jav. &c. pitang, piting &c.

## 44 Oil.

- a. A dau, yau; Manip. D. thau, Bod. thau, tau, Kumi atauk; Gar. Nic tavie; Kar tho. thu.  
 Ason.—Samb tuga (Kumi); Pol. kau, kahu (Bod., Manip.)  
 b. K pring. (? Tib *hbru-mar*, Japan *abra*, Pol. moli.)  
 d. L. nam, man (T. U.,—Tib num &c).  
 e. Kas. umpeni ang (? Pol. pani)

## 45 Plantain.

- a. A kong-tin.  
 Ch. kung-chiau.  
 Ason.—Baw kintang. Mad. kidang, Binua kantuk.  
 b. A. chui, L. kui, kue, klue, kluei. If, as is probable, klue be the original form, it is connected with the T. U. and Indian,—ngola, kala, kela &c, (kala Beng).  
 Ason.—Binua kalo, Sumba kluu, Pamp. galean-  
 c. M' prat (Drav. Iran)

## 46 River.

- a. A som, song, saung; Korong, shinggu, Murm shiong.  
 Tib. tsang (See T. U.); Ason.—Indon com. (See T. U.)  
 b. K. tun-li, Ka dek-tani, Chong tale, Manip. D. tulil, tala, tu, Gar. Nic. tohil, Singph. talau.  
 Turk. dara, idel, od l, Yeniz. tom, tatang, Sam. to-a, to, Drav. tanl.  
 c. K. prek, Rakh. mrik, mriet, Kyen lik, Sunw. liku.  
 Turk. elga, yelga, Sam. urga-bu, Fin wirta, Tungus. bir. (The Seythic root is *el, w* &c "water." *ga, ta w, b* are definitives.) *Af.*  
 Galla lega (Turk.); Ason.—Pamp. ilug, Tag. ilog (Turk.), Meri leko.

## 47 Salt.

- a. A. moe, man, M. bu, bho (Drav. upu &c.)  
 b. A. yen (Chin)  
 c. K. ambil, Kas. ka mluh; Kumi ma-lwe, pa-loi, Kar. hila, Aka alla, Abor alo, Mishmi plah, Kol bulang  
 Hind. milh, Arab. milch, Mahrah malhut, Bish. miluk, Egypt. mrh, Pashtu malga  
 d. L. kleua, klu, ka, keu, kem.; probably lu, leua, (c) with the guttural pref.

## 48 Skin.

- a. A. jia, ya, sha, Milch. sha, Limb. saho, New. yu, Urm. thayo Ugr. sou, such.  
 b. K. sibek, (T. U. Kumi apik, Singp. mophik &c.)  
 c. L. nang  
 Fin nagka, nakke &c, Tungus. nanda.  
 d. Kar. ka snep, Garo ho-lop.

## 49 Sky.

- a. A. bloei (M. "air"); Chong pleng; Mishmi brra, Car. Nic. fural. Ugr. pil, Turk. pielts (See "Air" d)  
 b. A. tung-tien, Khoib. thang-wan, Kapwi tang-ban, Nag. rang-tung, Abor. teong, Manip. D. tingem hazing &, Gurung tun li  
 Ch. tien, Jap. ten, Mongol, Turk. tenyri, tenyri, tengri &c.

- c. K. me', mek, A. mei, Burm. magh, mo, Kar. mukho, Murmimu, Gur. mun (Drav.)  
 d. K. kor, Ka krem, Sim. kael.  
 Sam. kuilah, Kamch. kolla Ason.—Solor kelam.  
 e. M. tudeah (?Gur. tundi).  
 Ason—? Parigi todong (?udong, "covering")  
 f. L. fa, tugek wan, Khoib. thung-wan, Kapwi tang-ban, Aka aupa. (Drav. For the Asonian affinities see Drav.)

### 50 Snake

- a. A. ran, Lungke rul, M. sum-prum (T. U.)  
 b. K. pos, Kus. ka baseir? (the ? is Mr. Robinson's); Sunw. busa (T. U.)  
 c. M. thaom, sum-prum, Kir. pacham Mamp ham-pu, hom-pwi, hum-ur. (prum is a and T. U., prum Maring &c. &c.)  
 d. L. ngu.

### 51 Star.

- a. A. ting-to, Naga pethi, lethi &c.  
 Mong odo &c., Ugr. teti &c. Af.—Galla tuwi; Asones.—tui.  
 b. A. sau, Kar. sa, Khyeng ashe.  
 Ug. sou, Ch. ch'lie, se &c. Ason.—Tobi aish (Khyeng.)  
 c. K. pikei; Burm. kre, kye, (T. U.)  
 d. M. nong, hnong, nyoh, L. nau, lau, dau, Burm. minong, ? New. nagu (See a.)  
 Mong. odon  
 e. Kas. uklur (? d. with the k pref., or from the Tib. kase, &c.)

### 52 Stone.

- a. A. da (T. U. do &c.)  
 b. K. timo, tamo, Ka tamoe, Chong tamok, M. ha-mok, kha-mouk, Ason—Pagai buku, Pamp buga, Pol. maka, kamaka (Mon.)  
 c. L. hin (probably from the Gangetico-Ultratraindian terms in l, r, the Lau, like the Anam, sometimes converting r into h.)  
 d. Kas. man, (? Naga, Manij. rung, nang &c.)

### 53 Sun.

- a. A. nhit, nhot, nyat (T. U.; Ason.—Iloko init.)  
 b. K. tingei, tangai, Ka. Ch. tangai, M. mu' tangwe, Koreng tingnai mik, (i e. Day's or Sky's Eye), Naga ting-lu (See "Sky", b.)  
 c. L. wan, ban, Naga wang-hi (See "Sky" f.)

### 54 Tiger.

- a. A. ho (Chin.)  
 b. A. onkop?  
 c. K. kila, M. kla, kyu, Burm. kya, Kas. u kla, Dhim khuna, Kol kula; Changlo kaila  
 d. Ka dea, de (? Tib. ta), Simang taiyo.  
 e. L. sua, seu, su, Naga sa, Jili kasa, Deor Ch. masa, Garo matsa, Bod mocha, Chep. ja, Murm. chyan, Gur. chen. (Tib. chan &c.) Si-mang chiai A. Ch. ho.  
 Ason.—machang, macha, masa (see T. U.)

## 55 Tooth.

a. A rang, nan-rang; N. Tangk. alara, Binua rangam, didara, Mishim. la.

Iran. danta, dara, dar &c. *Ason*.—Austral. danga, irang &c.

b. K. timbang, L. (-iam) tan, Singph. wa, Garo pha tong, Burm., Murni swa, Nag. va, wa, ha, Abor ipang, Himal. wa, apho &c., Milch. bung.

Jap. fa, Ugr. pane. pin, ponk, pankt; Drav. palk, pal &c. *Ason*.—Indon. com. ipang (Abor), ampon, ngipan &c. &c.

c. M. ngeek, ngeat, Kas. baniat.

*Ason*.—Savu uuntu.

d. L. khiau khia, Burm. kya Khyeng kye, Sunw. kryu.

Ch. khi.

## 56 Tree.

a. A kai, gokei, Manip. akoi, im. kuing.

*Ason*.—Aru kai, Tarawa kai, Bis. kauoy, Malay &c. kayu.

b. K. chu (Chin. che, chiu, shu.)

c. M. ka-non, ku-nom.

Korea nemo.

d. L. ton, tun, Kas. ka diing, (T-Him. dong &c., Khoibu hing-tong.)

## 57 Village.

a. A. lang, Kas. ka shong, thong, Mik. rong, Khyeng nang, Singph. mereng, Manip. D. ram, nam, rahang &c., Abor. dung, Magar. langha.

b. L. ban, man, Limb. bangkhe.

## 58 Water.

a. A. nuk, Ka dak, Chong tak, K. tag, tak, tik, M. dat, dai, Nan. row. rak.

Yenesei dok &c., Bengali udak (Iranian), Fin. tat se. *Ason*.—Tobi tat (Fin).

" M. dai. If this is not a contraction of dat, it is connected with the Tibetan and Gangetic-Ultr. doi, tui &c., Chinese chui &c.

d. L. nam; Chep. lang, New. la, lau. (root Seythic; Afr.—Malag. ra, Haus. rua &c.)

e. Kas. ka um, Ur. um, Male am, Lepcha ong.

Seythic (Kor. Tungus. mu &c.); Semitico-Afr. com.

## 59 Yam.

a. A. kwei (? Limbu khe).

b. L. man, man-dom, hoa-man.

## APPENDIX TO CHAP. VI. OF PART II.

## C.

COMPARATIVE VOCABULARY OF CHINESE AND TIBETO-  
ULTRAINDIAN NUMERALS.\*

- \* In App. C. the roots and not the adjuncts are italicised.

## One.

Chin *chit*, *yit*, *it*, *i'*, *che*, *ja'* \*; Tib. w. *gchig*, s. *chik*; Himalayan *chi*, *ghrik*, *kik*, *tik*, *kri*, *it*, *id*, *che*; *kat*, *ka*; Dophla *aken* &c.; Bodo *che*, Garo *sha*, Burman *ta-ik*, *tach*, *tit*, *te'*, *ta*, Karen *ta-ple*. Bong. *ka-kar*, Kuki *keaka*, Khyeng *pa-hat*, Nicolai *kohok*, Naga *van-the*, *katang*, *katu*, *akhet*, *atta*, *cha* &c., Miri *ako*. With the Chino-Tibetan and Burma-Himalayan compare Ugro-African varieties of the root,—fito Japan, *ytyk*, *odik*, *it*, *ot* Ugrian; *dik* Darfur *tok* Galla. It is difficult to trace the particular connections amongst these forms. The Ugro-African, Chinese, Tibetan and Himalayan are obviously variations of one root, which is probably best preserved in the full bi-consonantal forms *tik*, *dik*, *chit*, *chik*, which are found in all the provinces. But the centres and lines of diffusion are obscure. The African terms are probably of Scythic origin, like many other African numerals. Some of the Himalayan and Ultraindian forms may also be Scythic through eastern Tibetan, although it is quite possible that they are variations of the proper Tibetan forms. The Ultraindian and Himalayan forms in *a* are so peculiar, that doubt may arise whether they are all Tibeto-Chinese. *Ta*, *ka* may be a variation of *cha*, and *cha* itself of *chi*, but the prevalence of *ta*, *ka* as an Ultraindian and Asonesian definitive, and its occurrence in many of the Asonesian vocabularies as the numeral "one," suggests the possibility of a different origin. The Burman *tach*, *taik*, 1, *nhach*, *naik*, 2, Naga *not* 2, appear to be only vocalic modifications of *tik*, and of *nit* (or *nis*) 2. It is probable that the shorter forms in *a* are modifications of a similar Ultraindian variety of the Tibeto-Chinese root. The Naga *katu*, *katang* [*kat*-in higher numbers], *akhet*, [whence the Dophla *aken*] and the Khyeng *hat*, are probably merely an inversion of an ancient *tak* (Burman *tach*)† This form spread to the Himalayas (Lepcha, Magar *kat*, Sunwar *ka*, obviously referable to the Naga formus) The vocalic form *ta* is found in spoken Burman, Karen, and some of the Naga dialects, *ata* (Mithan) [whence *cha* Tablung, *sha* Garo, Deoria Chutia], in Abor-Miri *ako*, and in Sunw *ka* ‡ In the Yuma group in which the dental is replaced by the guttural, as in several

\* I may remind the reader that the apostrophe marks the abrupt sound equivalent to a suppressed or inchoate *k* or *t*, so that *i'* is a modification of *ik*, *it*, and *ja'* of *jak* or *jat*.

† [Mr. Hodgson's vocabulary of Gyarung, published since this paper was written, shows that these forms have not been produced by inversion, but by the cohesion of a common Ultraindian prefix *ku* (corresponding with the Ancient Tibetan *g—*) and the broad variety of the Chino-Tibetan root. Gyarung has *ku-ti*, (*ti* also found in Takpa, *thi*, a Burma-Himalayan variety contracted from *tiki*, *ka-ne* 2, *ka-sam* 3 &c. These forms, whatever their immediate origin and most direct affinities, correspond with the Tibetan *g-chhig* = *k-chik*, *k-uk*, *k-ti*), *g-nis* 2 &c. In many of the Himalayo-Ultraindian numeral systems, *ka*, *ta*, is retained in terms above 6, in a few it occurs in the lower terms as a postfix. See App. A. p. 3, "Seven".

‡ [Also in Manyak *ta-bi*]

Himalayan forms), it takes the postfix *ka*,—*ka-kar* Bongju, *kea-ka* Kuki (whence, probably, the Nicobar *kohok*). This tends to involve the Tibeto-Chinese origin of the final *ch* or *k* of Burman in some doubt, but as it is referable in other terms to Tibeto-Chinese or Tibetan, it may be considered as certain that a broad form (*tak* or *kak*, by contraction *ta*, *ka*, &c.) anciently prevailed amongst the North Ultraindian languages and was thence carried along the Himalayas. Amongst the Himalayan languages the Newar *chhi* is the only term for 1 that is modern Tibetan (Lhop. *chi* Tib. *chik*.) The Murmi *ghrik* is a derivative from the Ancient Tib. *gchik*, which, we may infer, had a very strong or guttural sound from which the Murmi *r* was evolved. The Gurung *kri* is a modification of the same form.

The term is radically the same as the definite article and unit of many Scythic, Ario-Celtic, African and Asonesian languages, *ta*, *ti* &c., *ko*, *ka*, *ek* &c.

The Karen *ldag* is Lau (*nung*, *ning*). It has remote affinities, North and Mid Asiatic, Dravirian &c. (e. g. *annon* Koriak, *onna* Drav., *eng* Car Nicob., *noun-bai* Austral. &c.). But as the same partic'e is a widely spread definitive, it is probably of native origin in the Lau system (*ni* 'this', *nan* 'that', Siam. &c.)

### Two.

Chin. *urh*, *ir*, *il*, *li*, *no*, *ji*, *gi*; Tib. *gnyis*, *nyi*, *ni*, Him. *nyi*, *ni*, *nhe*, *netchi*, *nis* &c. Miri, Dapula *ant* (Naga), Mik. *him*, Burm. *nha-ik*, *nhach*, *ne*, *nhit*, Nicob *net*, Naga *ani*, *yi*, *ne* &c., Khyeng *pa-nhi*, Kar. *khi-bo*, *hi-ple*, Singpho *akhong* \*

The Chinese appears to have two distinct forms or perhaps roots, and both are found in Ultraindia. The Kwan-Hwa *ukh*, *li*, is the prevalent extra-Chinese form, *nyi*, *ni* &c. The Macao and Hoken *gi*, *ji*, is perhaps connected with the Karen *hi*, *khi*, but it is more probable that both have been formed independently from guttural forms of *ni* (*nhi*, *nyi*, *gi*, *ji*). The final *s* of the ancient or written Tibetan is the parent of the final *s*, *t* of some of the Himalayan dialects, *nis*, Mag., *nishi* Sunw., *netchi* or *nyet-sh* Limb., *nyet* Lepch. So *aumat* Tengsa (Naga). In the other Naga dialects the final consonant is lost in 2, but it is preserved in 7 *ingit*, *anath*, *nith*, *tanet* &c. The Burman *nhit*, *nek*, *nhok* or *nhach* retain it. The Burman *nek*, Nicobar and Naga *net*, *ne*, appear to be connected with the Limbu and Lepcha *nyet*.†

The Chinese term or terms for 2 have no apparent connection with the N. and M. Asian ones, unless *urh* be contained in the Tungusian *yur*, Mongol *cho-yur*. But the root in *r*, *l*, *n*, *d* is the most common Aso-African term for 2. Its forms in other formations are frequently identical with the Chinese. In Africa it and the labial *ba*, *ma* &c., separately or combined, are almost universal, and as most of the African and Asiatic systems have an ultimate binary basis, the same roots enter largely into the names of higher numbers also. The Iranian *dwa* combines both, as in some of the allied E. African terms. Both are found separately and combined in the Mon-Anam terms, *bar*, *ar*, *ma*, *ba*, &c., and *r* alone is the earlier Dravirian term, *ir*, *er*, *re*, which closely resembles the N. Chinese *ir* as well as the Georgian *yeru*, *ori* &c. As *ir* &c. ap-

\* [With the Burman broad form, amplified by the postfixed def., *nha-ik*, corresponds the Gyarung *na-i*, Manyak *na-bi*, Thochu *nga-ri*. The Gyami *hang-ku* and *or* are pure Chinese varieties, the *li* euphonically amplified by the nasal final]

† [Gyarung *ka-nes*, Horpa *ngel*.]

appears isolated in the Chinese system, and is not even a Chinese definitive, it was probably borrowed by the original Chinese tribe, directly or immediately, from a formation in which the two definitives "this", "that" had become the foundation of a binary numeral system,—*ir*, *ra* &c. "that." The best representatives of this primitive Asio-African system must be sought in those languages in which *ra*, *ir* &c. still exists as a definitive and may be traced in the numeral 2 and in higher terms formed from it. The particle is so freely varied in other alliances by the consonant changing to *n*, *d*, *t* &c. that there is no reason to suppose that the tibeto-Ultraindian forms *nyé*, *ni* &c. have not been borrowed from the Chinese. But closer forms are found in Yeniseian, *ine*, *inya*, *hineang* (Kasia *hini*), and other languages.

### Three.

Ch. *san*, *sam*, *sa*, *ta*; Tib. *gsum*, *sum*; Him. *sum*, *som*, *song*, *sam* &c.; Miri *a-on-ko*, *auma*; Dhim. *sum-long*, Bod. *man-tham*, Garo *ga-tham*, *atham*, Kar. *the*, *sa*, Mik. *kathom*, Nag. *asam*, *azum*, *she*, *su*; Lem. *vau-rum*, Burm. *sung*, *thong*, *song*, Khyeng *pathong*, Bongj. *tumkar*, Kuki *tumka*. Lau *sam*.\*

The peculiar Naga form *ram*, *lem*, is found in the Milchanang 13, *sorum*, although 3 itself has the Tibetan form *sum*, and is also preserved in the Tibberkad *sa-hum*, *chop-sum*. [See Ap. A.]

The closest foreign affinities are Korean and Caucasian. Kor. *sai*, Georgian *sami*, *sumi* &c., Lesgi *shamba*. The same combination has been carried to Africa *saba*, *sauwa* &c., Mandingo group. In the Caucasian systems the numeral terms are regularly formed from a few definitives by flexion and the coincidence of the Georgian *ori* 2, *sumi* 3, with the Chinese *ir* 2, *sam* 3, Tib. *sum* 3, can hardly be accidental.

### Four.

Ch. *se*, *si*, *tí*; Lau *sí*; Tib. *bzhi*, *zhyi*, *zhi*, Lhop. *zhi*, Serp. *zhyi*. This term, in its dental and sibilant forms, has made little progress in Ultraindia. Nagaung Naga has *paz*, Angami Naga *da*, M. Angami *deh*, Kuki *ta*, Bodo *dia*, which appear to be all modifications of the Tibetan forms of Chino-Tibetan.†

*Sí*, *tí*, is a very common definitive, and much used as a numeral element. It is found as such in Scythic and African languages (e. g. *tetí*, Samoide). But as the Chinese 2 and 3 are most closely connected with Caucasian, and *chi*, *thi*, *se* &c. is the principal element in its flexional series of numerals, it is probable that the Chinese is related to the Georgian *otchi*, *otchi* &c., to which also may be traced the African *ata-chi* (Timbuktu).

The most common term in the Tibeto-Ultraindian languages requires from its peculiar form, to be separately discussed. It has been carried by the North Ultraindian tribes to the Himalayas, where it has Naga, Garo and Burman forms. Burm. *le*, Bongj. *lekar*, Khyeng *lhi*, Kar. *li* Naga *phali*, *phale*, *beli*, *pili*, *ali*. Singphu *meli*, Mikir *phili*, Garo *bri*, Bodo *bre*; Himalayan,—*apli* Daphla, *plei* Chepang; *le* Sunw. (Burm.), *li sh* Limb. *phali*, *phulut* Lepch., *buli* Mag., *bli* Murmi; *pili*, Gur; *leya* Kiranti.

\* [Thochu *kshiri*, Gyami *sangku*, *sen*, Gyarung *kisam*, Horpa *su* (T. Naga), Takpa *sum*, Manyak *sin* (Thochu *shi*, Nag. *she*, Kar. *the*)].

† [Thochu *gzhare*, Gyami *si*, *siku*, Gyarung *kadi* (Bodo), Horpa *lla*, Takpa *pili*, Manyak *rebi* (Burm. Him.)]

These are all North Ultraindian forms. Pi, N-war, Therkad, is identical with the Abor-Miri *apiko*, *apie*, which is a contraction of *apliho*, as appears from the Daphla form *apli*, and from Abor-Miri itself preserving the full Naga form in *pili-ngo-ko*, 6. The Milchauang *pu*, *puh* is probably a modification of *pi*, corresponding with *ba* in the Magar *buli*. This is more probable than that it is a direct derivative from the Mon-Anam and Vindyan *pun*. But *pun* may itself be related to the Burma-Himalayan terms. The latter, in some of their forms, are identical with certain forms of the African numeral which appears to have been the original of the Mon-Anam, Malagasi and Asonesian terms. As that numeral is itself founded on a root for 2, —*li*, *ni*, *lu*, *nu* &c., which is common to Chinese with many Asiatic and African languages, and as the term for 4 so formed had a very archaic and extensive prevalence in Asia and Africa, there are several possible sources of the Burma-Himalayan term. The simple forms *le*, *li* &c. are identical with the Chinese *li*, 2, of which the Tibetan and Ultraindian *nyi*, *ni* &c. is a slight modification. *Li* may therefore be a derivative from an east Tibetan dialect, or it may have been formed in Ultraindia from the Chinese *li* or the Tibeto Ultraindian *ni*. But it is improbable that such a term for 4, or mode of forming 4, prevailed in eastern Tibet, when the Chino-Tibetan system has a distinct term for 4. It is equally improbable that the principle of constructing such a term was acquired in Ultraindia after the Chino-Tibetan system was introduced, and was then applied to the invention of a new term for 4 which displaced the proper one of that system. The simplest conclusion is that *li* is a modification of the Chinese *ti*, *si*, through the sonant form, of which we have an example in the Bodo *dia*, whence the Angami-Naga *da* &c. The Tibetan sonant *bzhi* is probably the immediate parent both of the sonant dental forms and of the labial prefix (*bazi*, *badi*, *bali* &c.).

### Five.

Ch. *ngu*, *u*, *ing*, *ngo*, *go*; Tib *hna*, *gna*; Him. *gna*, *gua*; Miri *angoko*, *ungo*, *pilingoko* (*pili*, 4, Naga); Dhim. *na*, Mik. *phong*; Naga *nga*, *aga*, *banga*, *phungu*, *pungu*, *phanga*, *pengu*, *pangu* (the Bodo *ba*, *bha* is probably a contraction of the Namsang *banga*); Singph. *manga*, Barm. *nga*, *na*, Kar. *yai*, *ye*, Khy. *nhan*, [Nic. *tunhie*, *tuni*]\*; Kuki *nga*, Bong. *raingakar*.† The Karen *yai* is exceptional. It appears to be Dravirian (*yai*, Toda, *ayi*-du Telug. *ayi*-nu Tul &c.).

The Chino-Tibetan nasal root itself, *ngu*, *ing*, *nga*, *na* &c. is allied to the Dravirian *an*.

### Six.

Ch. *lo'*, *la'*, *lu'*, (i. e. equivalent to *lok*, *lah*, *luh*); Tib *w. drah*, s. *thu* W. Tib. *duk*, *tuk*; *dhu* Lhop., *tuk* Serp.; Him.—*dhu*, *tu*, *khu*, *tuk*; Lep. *tarok*, *tok*, Sunw. *ruk*; Chep. *kruk*, Bodo *do*, *ro*, Dhim. *tu*, Garo *krok*, *dok* (Chepang), Mikir *thorok*, Naga *tarok*, *thi lo*, *arok*, *irok*, *soru*, *azot*, *vok*, Singph. *ku*, Burm. *khrauk*, *kkyok*, *khyauk*, *Bong*, *rhukar*, Mon *karau*, Ka *trau*. Changl. *khung*, Abor-Miri *akye*, *akengko*, Kuki, Kar. *ku*.‡ The distribution of these terms is peculiar. The wide

\* Probably Mon-Anam. See App. A.

† [Thochu *ware*, Gvami *wa*, *wuku*, (Chin. *u*) Gyar. *kunggo*, Horpa *gwe* (Chin. *go*). Fakpa *tiagwe* (i 4, as in Miri), Manyak *gnabi*.]

‡ [Gvami *leu*, *euku*, Gyar. *kutok* (Tib.), Fakpa *kro* (Singpho, Garo, Chep.), Manyak *trubi*.]



spread *khrauk*, *kruk*, *karau*, *trau* &c. is evidently an archaic East Tibetan form of the Chinese *lu'* or *luk*, allied to the Written Tibetan *druk*. Its diffusion amongst languages of the Mon-Anam formation is probably attributable to the numeral system of the latter having been purely quinary, or without any substantive term above that for 5. It is found in Kol and Gond also. The Naga *tarok* might be thought to be an immediate derivative from the Tibetan *druk*, if *ta* did not occur frequently as a prefix with other numerals and words, and the numeral root, *ruk*, *rok*, *lok*, occur bare and with distinct prefixes in other Naga dialects. The Garo *krok* and Chepang *kruk* are obviously derivatives from the Burman *khrauk* and although the Lepcha *tarok*, *trok*, resembles the Tibetan *druk*, I have no doubt—looking to the cumulative evidence of the influence of Ultraindian forms of numerals and other words on the Himalayan—that it is a derivative of the Ultraindian *tarok* (Nagaung Naga.)

The Karen and Kuki *ku*, Dhimal *tu*, Bodo *da*, *to*, Naga *so-ru*, Bong-jurhu-kar appear to be contracted forms, which in Changlo and Abor-Miri take a nasal final *khung*, *heng*. The Abor *a-kye* and Dophla *a-k-phe* present it in a very curt form, and the latter curiously preserves the Karen postfix *ple*.

### Seven.

Ch. *chhi*, *ch'hit*, *ch'het*, *thet*, *sit*; Lau *chet*, *chiat*, *tset*, Singph. *sinit*, Kyen *shi*.

The allied Ultraindian and Himalayan terms are remarkable. The Mon-Anam or earlier Ultraindian system was quinary, and a like system is still seen in the Burma-Himalayan terms for 7, which are simply the term for 2 sometimes slightly modified. It was doubtless formed on the model of an ancient quinary term, 5-2, the term for 5 having been lost. The circumstance of the root for 5 not being found accompanying that for 2 in any of the languages, is a strong proof that the prevalent Burma-Himalayan numerals were derived from one language which had dropped the term for 5 before it became diffusive. The Tibetan term is *bdun*, *dun*. It has made hardly any progress on this side of the Himalayas, the only examples I find being the Lhopa *dun*, Serpa *dyun* and Changlo *zum*, a modification of the Lhopa *dum*. The Tibetan term is not Chinese, but it is Tungusian *nadan*, Mong *dolon*,\* Korea *itun*, and it enters into the Kamchatkan *nytonok* &c.

The following are some of the Burma-Himalayan terms. Burm. *khwan nach* or *nak*, *khunhit*, *kuni*, Abor, *kunit-ko* Miri *kunide*, Nag. *tanet*, *nith*, *anath*, *ingit* &c. Singph. *sinit*, Garo *sining*, *sniit*, Bodo *chini*, *sni*, Dhim *nhi*: Kar *nui*, *nwi*, *nis*, Chani, *nhe*, *noshi*, Kuki *s. sri* [Garo *ani*], Bongj. *sre-kar*, Kasia *hinian* (*hini* is 2 in Mikir). The Abor-Miri *ku-nit-ko*, *ku-nid-e*, is directly connected with the Burman *khun-nhit*.† The Dophla *ka-nag* is the same word with the final *t* of 2 converted into a guttural, as in the ancient Burman *nak*, *nach* &c. The Kiranti *bhag-ya* alone preserves the proper term of the Mon-Anam system. Comp. Mon *ka-bok* (from *ba*, 2). The prefix *ka* is found in Lepcha from 7 to 10, but the term for 7, *kyok*, is peculiar.

\* [Sokpo tolo].

† [Gyarung *kush-nes*, Takpa *nis*].

## Eight.

Ch. *pat*, *pe'*, *boi'*, *poi'*. This term has not been borrowed by the Tibeto-Ultraindian languages. It is found in Lan, *pet*.

The Tibetan term is *brgyud w. gye s.\** The ancient form (probably still prevalent in E. Tibet) requires to be compared with the Ultraindian and Himalayan terms in which *r* is the consonant. The Kasia *prah*, if it stood alone, might seem to be a contraction of an ancient Tibeto-Ultraindian form which preserved the Tibetan prefixal *br*. But as the Kasia term for 2 is *ar* (Mon, Kol, Chong, *mar*, *bar* &c.) it is more probable that *prah* is formed from it. In many systems primarily based on a binary scale, 4 and 8 are modifications of 2. From the Kasia form comes the Nicobari *awera*. The other allied forms lose the *p*. They are *rach* Burm. w., *rai*-kar Bongju, *rae* Kuki, *rai*, *rhai* Milchanang. But some doubt is thrown on *rai* by the Tibberkad *ghai*, the Tibetan form *ghoh* being also found in Tibberkad. Final *i* is affected by these extreme Western languages of the Gangetic formation as well as by some of the extreme Eastern (e. g. Bodo) which have received it from Ultraindia (Karen &c.) Thus 5 is *gnai* (Tib *gna*), 6 is *tuki* (Tib w. *tuk*), 9 is *gui* (Tib *gu*). Final *i* being common to Milchanang and Bodo, the Bongju and Kuki *rai*, *rae* are in favour of *rai* having been the form of the Kasia *ar*, *ra*, 2, that prevailed in Bodo and the other Gangetic languages and was spread as far west as Kanawar. The common interchange of *r* and *g* or *gh* would of course explain the conversion of the Tibetan *ghe* into *re* as well as the Ultraindian *ra* into *gha*, the vowel being a small element in favour of Ultraindian origin. The point however is, I think, settled, 1st, by the evidence in favour of an early diffusion of Ultraindian words up the Gangetic basin and across the watershed into that of the Sutledge, and against any early diffusion of Tibetan words from the Sutledge down the Gangetic basin; and 2nd by the Kasian term *prah* being found in the Chepang *prap*, Gurung *pre*, Murmi *preh*, *pre*. The Kiranti *reya* gives us the root again. The forms in *pr* are connected not only with the Mon-Anam term for 2, but with the prevalent Burmah-Himalayan terms for 4, *pali*, *pili*. In several of the languages 8 appears as a mere flexion of 4 (i. e. 4 dual). Gurung 4 *pili*, 8 *pre*. In the Abor-Miri *pu-nit-ko*, Abor *pi-nye*, the labial is the term for 4, (a-*pi*-ko, *pu*, *bu*, Nipal, Milchanang, combined with that for 2 (i. e. 4 the 2nd time or twice). In the Daphla *plagnag* the same combination is found (See 2, 4 and 7).

The common N. Ultraindian term is a similar binary remnant. Burm., *shit*, *shyit*, *si'*, Khyeng *shat*, Naga *isat*, *acheth*, *achat*, *sachet*, *te*, *thesep*, *thuth*, *thetha*; Singph. *matsat*, *makat*, Garo *chet*, Bodo *jat*.† All these appear to be modifications of a term preserved in the Kiranti *hasat*, 2, and having affinities with some N. Asiatic binary terms for 8, i. e. Samoiede *shit*-sedi, *siti*-wieta, Tungusian *dschap*-kun. The root is primarily 2,—Samoiede *shit*, *site*, *side* &c., Ugrian *kit*, *ket*, *hat*, *kak* &c. &c. and may be recognised in the Chino-Tibetan *si*, *ti*, *zhi* &c. 4 (i. e. 2 dual).

The Limbu *yet*, Sunw. *yoh*, Dhimal *ye*, are probably Tibetan (*gye*). The Lepcha *ka-keu*, *kuku* is probably an ancient term formed from the

\* [Gyarung oryet, Takpa gyet.]

† [Manyak zibi].

W. Tibetan *gyd* &c. The Karen *hkgo*, *kho*, is allied to it.

### Nine.

Ch. *kiu*, *kau*; Tib. *dgu*, *guh*, *gu*, Him. *gu* &c.; Ultraindian *ku*, *ko*, *kho* (with prefixes &c. in some dialects), Singpho. *tseku*, Himal. *ku*, *kuh*, Changlo *taku* (Naga), Bodo *chku*, Gar. *ju*, *shku* Milchanang *sgoi*; Lau *kau'*, Karen *kui* (Chinese).\*

### Ten.

Ch. *shi'*, *ship*, *chap*, *tap*; Tib. *bchu*, *chuh*, *chu*; Him. *chuh*, *chui* (Tiberk); Ultraindian, — *shi*, *chi*, *che*, *si*, *tsi*, *se* Burman, Karen, Naga &c., Garo *chi*, Bod. *ji*. The Ultraindian is closer to the Chinese than to the Tibetan form, and it has been carried westward into the Himalayan dialects, *chi-mai*, *sa nho*, *thi bong*, *se*. The term is evidently the Chino-Tibetan root for 1, *chit*, *chik*, *chi* &c. a mode of naming 10 (1 tale) found in many other languages. That the Ultraindian and Himalayan forms have been derived from Chinese, or from an eastern Tibetan vocabulary, is further shewn by the Mikir *kep*, Kiranti *kip*, which is the Chinese *chip*. The Burman *ti-che*, Rakhoing *ta-se*, prefix the term for 1 without its guttural final. †

In the Chinese system the numbers between 10 and 20 are formed by placing the lower numbers after the word for 10, while the articulate terms or *tens* are formed by placing the lower numbers before the word for 10, which precisely accords in principle with the Hindu, Arabic and European notation, although not with the nomenclature in the series between 10 and 20 (e. g. 13 corresponds with the Chinese naming, but not with ours which places the digit before the ten, *thir-teen*; but *thir-ty*, *thirty-one* &c. correspond with the notation, 30,31). The following examples will show the consistency of the Chinese notation with the collocation of the words, *chap* 10, *chap it* 11, *chap ji* 12, *chap see* 13; *ji chap* 20 (2,10), *sa chap* 30 (3,10) ‡

\* [Gyarung *kunggu*, Takpa *dugu*, (Tib). Manyak *gubi*, Horpa *go*, Thochu *rgure*.]

† [Gyarung *si'*, Manyak *chechibi*, Takpa *pchi*.]

‡ Note on the Chinese and Indo-Arabic numeral symbols.

Names of numbers must have preceded symbols, and the Indian symbols must have been invented by a nation which followed the Chinese system of naming, that is such a term as *thir-teen*, *trayo-dashan*, *te-rah* could not have been used by it. The Dravirian and Mon-Auam systems agree with the Chinese in placing the decimal in its natural place, e. g. 11, *pati numu* (10,1) in Tamil; *gel miad* (10,1) in Kol; *moi mot* (10,1) in Mon; *kad wei* (10,1) in Kasia. That this system is the natural one is proved by its prevalence in other languages, American, Asiatic (Scythic, Georgian, Euskarian &c.), and African. The Indo-European and Semitic collocation is exceptional.

The perfecting of the decimal notation must have been a slow process, and may have been the work of the civilised Dravirians or other pre-Arian nations of India. But the Chinese had advanced far in this direction, and there are sound grounds for attributing the rudiments not only of the system, but of the symbols also, to them. The Chinese symbols for the three lowest numbers are respectively 1, 2 and 3 strokes,

placed horizontally in the formal, and vertically in the common, notation. The Indian and Arabic figures—the originals of the European—are obviously cursive or connected forms of similar symbols, and it is curious that in the Indian—from which the Arabic are supposed to have been derived—the strokes are horizontal, while in the Arabic they are vertical, from which we may perhaps infer that vertical symbols were at one time partially current in India also, or that considerable license prevailed in their position. But the Arabic are so much closer to the vertical Chinese than to the Indian, that it appears most probable they were directly borrowed from that system. A comparison of alphabets shows that written symbols are very apt to be turned in all directions, right or left, up or down, in their progress amongst rude tribes, prior to the adoption of uniform materials for writing. Leaves, bark, hard bambu, cloth, coarse paper that blots, styles, reeds, quills, brushes, paint, ink &c., all influence the form and position of the symbols. The Chinese symbol for 4 appears anciently to have been, in its rudiments, 4 strokes, a horizontal with two dependent vertical, and a smaller horizontal carried out from the bottom of the right one. It has been complicated by adding two large vertical lines at the sides and one at the bottom, forming with the upper horizontal line an enclosing square which would itself represent 4. In the common figure the four lines are obtained by a simple crossing of two curved strokes. The Indian symbol is a similar cross, but with the bottoms of the curved strokes joined and rounded, that is, the figure is written without lifting the pen, and the two strokes run into one symbol, as with the Indo-Arabic 2 and 3. In the Chinese 9 the symbol for 4 is sometimes looped in the same way. The ancient Chinese 5 appears to have consisted rudimentally of 3 horizontal, crossed by 2 vertical, strokes. The common figure is a very remarkable one. It consists of a body precisely resembling the Indian form of 4 (that is, a cross converted into a loop by writing it without lifting the pen or brush), and a short stroke carried up from the left point, or it is a stroke with the symbol for 4 affixed (i. e. 4, 1). It appears to be a rounded, cursive, unilinear modification of the ancient symbol for 5. The Indian, Arabic and European figures for 5 vary greatly, but some strongly resemble the Chinese symbol. The Zend is evidently this symbol curtailed of the loop. The Devanagri, Mahratta and European are also close to it. The common figures for 6, 7, 8 and 9 are quinary, that is, they are the figures for 1, 2, 3, and 4 with a short vertical stroke to represent 5, or distinguish them from the lower series. In 9 it rests on a horizontal stroke, the figure 4 having no stroke of the kind to support it, as in 1, 2 and 3. The formal symbols are probably less simple compounds of a similar kind. The upper part of 6 is the common figure, (equivalent to 5, 1). The nomenclature was also probably quinary. The ancient 8 and 9 appear to be related. 9 is 4 without the three enclosing lines, and with the left vertical stroke prolonged above the horizontal line to represent 5. The Indian, Arabian and European symbols for the higher numbers vary greatly, and the same figure has different powers in different systems, but, like the Chinese, they appear to have been originally formed from the lower ones. Thus the Devanagri 6, is 3 reversed, with the addition of a small curve at the top. 7 is, in general, two strokes like the letter v, but variously placed, sometimes curved in both or one of the strokes and frequently resembling 1. The 7 of Devanagri and one variety of

Arabic resemble the Arabic and European 9, which is also the Indian 1, the Arabic and European preserving the simple Chinese form. The Devanagiri uses the same symbol for 9 with the loop on the *right* side. The same symbol serves for 6 in Arabic with the loop below but on the left side; while in Mahratta with the loop on the right, as in our 6, it is the symbol for 7. The figure for 8 is rudimentally a simple inversion of that for 7. In some systems it appears to be formed from 4 (as the name is in some systems, i. e. 8 is 4 dual). In general 9 is a modification of 6, as that in some forms is of 3, thus corresponding with the trinal nomenclature, 3, 3 dual, 3 trinal.

It may be inferred from the above that the Chinese and the various Indian figures are ultimately referable to one original, whether in China, India, or S. W. Asia. Some of the rudimentary symbols, as well as the principle of combining and modifying them, are common to all the systems. The Chinese mode of symbolising numbers above 10 is ruder than the Indian. They have distinct symbols for 10, 100, 1000, and 10,000, so that their notation exactly corresponds with the oral expression. Thus the figures for 236 consist of the symbols for 100, 10 and 6, with the symbol for 2 over the 100 and that for 3 over the 10, and it is read off "Two hundred, three ten, six." The circumstance of the figures being placed or read from left to right, instead of from top to bottom or right to left like the symbols of the ancient numerals and the ordinary characters, appears to show that the Chinese system has been influenced by the Indian and European. But its general character is that which the latter probably presented in its earliest stages. It is not likely that the idea of value from place alone preceded the use of figures, while a foreign civilised nation which had adopted the Chinese methods would be more ready to discover that the symbols for 10, 100, &c. might be dispensed with or understood, and to reject them, than the Chinese themselves. The rudiments of the Indo-Arabic notation are preserved in Chinese, and probably originated with that race.

\* The Tibetans and most of the Burma-Himalayan tribes follow the Chinese in their mode of naming the numerals above 10. But there are many exceptions and irregularities, occasioned by the mixture of systems and terms, and by languages mutually borrowing. For example even the Lhopa has not only the Tibetan term for 20, *nyi she* 2, 10, but a hybrid term *khechik* in which the Tibetan *chik* 1, is suffixed to *khe* which must be 20 or "score"; 30 is *khe-phedu-ni*, 40 *khe ni* (score 2), 50 *khe-phedang-sum*, 100 *khe nga* (score 5). In Lepcha *khe* is *kha*, 20 *kha-kat*, 30 *kha-kat-sa kati* (score one and ten), 40 *kha nyet* (score two), 50 *kha nyet sa kati* (score two and ten), 100 *kha kha ngou* (score five). In Sunwar we find 20 *khalka* (score), 30 *sasi san* (10, 3); 40 *khak neshi* (score 4); 50 *khak nishisasika* (score 4 and 10 one i. e. scores 4 and tens 1).

\* In the terms for 100 Chinese and Tibetan differ. The former has *pe'*, *be'*, *p'*, equivalent to *pak*. The latter has *gya*. The Tibetan term appears to be unknown in Ultratania. The Chinese is found in two Naga dialects, *puga*. The ancient Tamil *paka* has an accidental coincidence with the Chinese term. But the root *pa* may be ultimately

referable to a similar source with the Chinese. Both the Chinese and Tibetan terms have some appearance of being flexions of the terms for 8. Chinese 8 *pat*, 100 *pak*; Tibet 8 *brgyud*, *gye*, 100 *brgya*, *gya*. If the scale is based on a binary one, as is probable, the resemblance is real. In some of the Mon-Anan languages the same root is found expressing 2, 8, and 100.

*Addendum (p. 18.)*

**47 Road.**

- a. A. dang, L. tang, M. dan, ga-lan, K. kalanti (T. U.)
- b. K. chira da.
- c. A. ngaba (? Bodo, Dhimal lama, dama Tib.)

## D.

COMPARATIVE VOCABULARY OF MISCELLANEOUS WORDS COMMON  
TO TIBETAN, INDIAN AND ULTRAINDIAN LANGUAGES,1 *Air*.

a. T. *w. lungma*, s. *lhakpa*, Serp. *lungbo*, Milch. *lan*, Kir. *hak*, Murm. *lhaba*, Gur. *nangmro*; Mishm. *arenggha*; Nag. *rang-bin*, *rangehe*, Manip. *nung-sit*, *thirang*, *phanra*, *khirang*, *nong-lit*, Garo *law-par*, Lau *lom* (1).

Burman alliance, li, le, *kali*, *tali*, Chango *ridi* &c. (Gyarung).

The Tib. *lhak*, Kir. *hak*, probably occurs in the Lepcha *sag-mot* "air", sak-ni "day", and in the Limbu *tam-sak-pe* "sky", *sa-chak* "sun".

Drav. *elaru* Fin. *lil*, *ilma*, *lemin*, Yukahiri *ili*, Turk. *il*, *eil*, Aino *rera*; Cauc. *churi*, Georg. *kari*; Iran. *aura*, *aer* &c.; Semitic ("wind") *re*, *ire*, *ira*; African *ahru*, &c.; Ason.—Meri *longlangi*, Sambawa *langi*. Pol ("wind") *malangi*, Rotuna *leang*, Sumba *riru*, Mandh. *iri*, "wind", *iri* Pol., *savili*, Parig. *pu-ire*, Kaili *powiri* (The same root is found in "Sky", "Sun" &c.).

2 *Ant*.

a. T. *w. grogma*, Serp. *rhunma*, Sunw. *rog-machi*; Aka *tarak*, Ab. *taruk*,

b. T. *s. thoma*, Lhop. *kyoma* (2).

Ason.—Binua *tumi*, Silong *kedam*, Ilok. *hutom*.

3 *Arrow*.

T. *w. mdah*, s. *da*, Serp. *Lh. da*; New Bodo *bala*, Sunw. *bla*, Karen *pla*, Singph. *pala*, Jili *mala*, Nag. *thelu*, Manip. *la*, *lu*, *nla*, *malu*, *mala*; Burm. *mra*, *mya*, Murmi, Gur. *Mag. mya*, Kir. *me* (3).

Iran.—*pilu*, Sansk.; [*vil*, *vellu*, *billu*, "bow" Drav.,] *pilum* Lat., *pijl* Dutch, &c. E. Afr. *mpamba* Suah., *impamba* Makua (Drav. *ambu* &c.); Malagas. *avana*, Yoruba *offa*, Sech. *bura* "bow", Makua *mura*, "bow" Asonesian,—Pol. *taa*, Pagai *rorow*, Lobo *lara-kai*. The most prevalent Malayu—Polynesian terms are of direct Malagasy and African derivation. Indon. Pol., *tana*, *pana*, &c.

4 *Bird*.

a. T. *w. byu*, Tib. *lha*; Tiberk. Milch. *pea*, *pia*, Lep. *pho*, Limb. *bu*, Chep. *moa*; Male *puj*; Nag. *vo*, o, *thevu*, Manip. *va*; Singh. *wu*, Kyo *wa*, Kumi *ka-wa* (4).

Asones —Samb. *pio*, Kis *bau*.

b. T. *s. chya*, serp. *jua*, ? New jhanggo, Sunw. *chi-va*, Mish. *tsa*, Dhim.

(1) [Gyarung *tali* (Toung-lhu, *tali*, Karen, Khy. *kai*, Burm. &c.); Manyak *merdah*; Takpa *rho* (Gur. *mro*)].

(2) [Takpa *rhokpa*, Manyak *barah*, Gyarung *korok* (Tib. *grog*), Thochu *su-khra*, Sokpa *khoro-khwe*, Horpa *skhro*].

(3) [Takpa *mia* (Burm.), Manyak *ma* (Burm. &c.), Horpa *lda* (Tib.)]

(4) [Gyarung *pye pye*, Takpa *pya* (Tiberk. Milch.), Gyami *sphui-chher* (Chin. *chio* &c.)]

jiba; Manip. *masa, macha, matsa*, Nag *uso, uzu, ozah, auha* &c. (4 b).

Chin. *chiao, chio, tio*; Korea *sai*, Aino *ziáf, chirpu* &c. Tungus. *gasha*, Turk *chush, kush, kuzhu, kus*, &c. Magyar *katsa* (towl). *Caucasian*.—Lesg. *heso, ueza, uetzu*, Circ. *zis, chshi*, Georg *kinchi* *Asonesia*,—Bima *janga*, Mank. *janganjangang* (Newar); N Aust. *bijitj*; Komr. *sisu*, Lamp. *siu* ("fowl"); Sam. *tuhu, chundo, chiacha*; Mong. *shobo, shobon, sebechu* Hind. Beng. *chiriya* (see also *Mon-Anam*).

### 5 Blood.

a. T. *w. khrag, s.*, Serp *thak*, Lh. *thyak*, Milch. *pulach* (5).

Bengali *rakta*, Sindhi *rat*, Sansk. *rudira*, Nic. *kanak*; Ugr. *wuorak*; Afr.—Saumali, Galla *dik, diga* [The Asones Pagai logow, Buol luku, Mag. *lugu, rogo* &c. Roti daak, are probably from *dara, lara*]

### 6 Boat.

a. T. *w. gru*, Lh. *dru, du*, Chang *dru*, Serp *thu* (6). Abor *etku*, Mish. *rua*, Garo *rung*; Gang-Ultra. *dunga*, Nag. *lung, surung, arong, ru*; Murung *rung, dunga*; Khyeng, Lungkha *laung*, Kumi *plauung, milaung*, Kyo *plauung*, Mon *kleng, ga-lon*, Liu *ru, reua*, An. *ding, Kas, liung*, Burm. *lha, Singpho li, kar khli*.

Ason—Mair. *era*, Tilanj *alina*, Tag. *longa*, Jav. *palang*, Indon. *baru, bulu, parau, prau, Pol. falau*.

b. T. *s. koa*; Nag. *koa, khuon, kho, khung*.

Asones.—Savu *kowa*.

c. T. *s. syen*, Nag. *yesang*; *ihseng*.°

Chiu. *chü, ch'hiang lang*.

### 7 Bone.

a. T. *w. ruspa*, Mag. *misya ros*, Sunw. *rushe*, Chep. *rhus*; T. *s. ruko*, Serp. *ruha*, Gur. *nug-ri*, Murm. *nakhü, Lh. rutok*, Mish. *ruboh*; Nag. *arah, rha, rah, aru, uru*; Lepch *arhat*; Manip. *saru, karau, maru, para, soru, aru, arukau, uru, thuru, khru*; Yuma *ru, aru, ar, Singph. nrang*; Burm. *aro, ayo*; Lau *duk, nuk* (7).

Drav. *elume, eluva, elu* &c. Pashtu *alukei*, &c. Semitic, *alam, alat*; Cauc. *ratla* &c. Malag. *taolana, tolan*. Asones.—Jav. *balang*. Lamp. *belu*; Austr. *pura*, Baw. *loh*, Komr. *lolor*, Solor. *riuk* (? Lau), Erub. *lid*, Taraw. *ri*; Indon. *tulang* &c. (*Malagasy*).

### 8 Buffalo.

T. *w. mahi, s. mahe*. Luh. Lepch. Murm. *mahi*, Gur. *mai*, Serp. *meshi*; N. & C. Tangkhul *shi*.

Hind. *bhains*, Beng. *mohish*. Semitic *gam-bus, jamus*. The original term was probably the wide spread *mos, bos* &c. "cow" [See Naga.—Himalayan "cow"; Naga *masi* &c.]

(4 b.) [Manyak ha (Naga auba)].

(5) [Takpa khra]

(6) [Gyarung *bru*, Takpa *gru*, Manyak *gu*]

(7) [Tho-chu *ripat*, Gyar. *syarhu*, Takpa *roska*, Many. *rukhu*; Horpa *rera*]



## 9 Cat.

a. T. w. byila, Lh. pilli.

Hind. billi &c., Lat. felis.

b. T. s. simi; Nag. ami, miang, miah, mochi, mesa; N. & C. Tangkul tumi, lame; Yuma ni, ami, mim, nim-boi, mi-yang; Kar. ma-miya; ? Kamb. chima; Bod. mouji (9).

Mongol mii, Japan mio &c. Chinese miao, bin, niau, ngio; *Asones* — Indon. miong, miao, miu, meo &c

Is the Tib simi connected with singa, "lion.?" In Indonesia sing, kucing, uching is a term for "cat".

## 10 Cow.

a. T. w. ba, s pha chuk [Tungus chyukun], Sunw bi. Limb yopi, Dhim pia; Burm nwa, nua, Kar. wa bing, ga phi (10); Lau woa, An. bou; Drav awu, avu, pei &c.

Indon sapi

b Bh. Milch. lang.

Fin lehmu, lehma; Cauc ol, al; Semit. la (root); Galla, Amharie lam, Danak. lah, Galla lawom, lawum, Suahili lombe; *Ason.* — Indones. limbu &c

## 11 Crow.

T w khata, Sunw. khad; Magar kag. T s. ablak (11), Serp. kalak, Ah. ola, Lepch oluk, Gur mlongya.

[Drav. Vindy. Gang-Ultr kha, ka, kuawa, kag &c]

## 12 Day.

T. w. nyinmo, s nyimo, Serp. nimo, Lh nyim. New nhi, Mag. nam-sin, uuw na-thi, chep nyi, ngi, Chang ngam, Dhim ngitima; Naga anyi, ni, tini, nhi; Singph sini, Jilt-tana, Burm ne, Kar ni, Yuma tavi, kan-ni; Anam nyat (12).

Tungus ininy, manyi; Yenes. na; Cauc kini, dini, *Asones*. — Born. ngo, nga, ungu, Sambaw auo, Buol nu &c; ("sun", Indon. neno, init).

## 13 Dog.

a. T w. khyi, Serp. Lh. khi, (13) Milch. kwi, Tiber kaoui, Limb. khia, Murm nangi. New. khi-cha, Gur nagyu, Mag. Chep kui, Chang. khu, Aka, Abor eki, Dhi. khia, Gar. kai; Naga, kui, bi, hu; Manip. wi &c., Singph kwi, Burm khwe, Kar htwi, Yum. wi, ui, bui; Kamb chake

Chinese khi u, keu. keo &c, Korea kai; Mong nokoi, Fin koiraa karro &c Caucas koy, choi, woi, gwai, kari &c *Asones* — Bin koib, koyo, Phil kua, awei

b. T. s. uyo (? Scythic, from a form similar to the Binua koyo)

(9) [Thochu lochi, Sokpa simi, Manyak macheu, Takpa syimbu]

(10) [Thochu gwa', Manyak wo-mi (mi is used generically as in ding-mi "buffaloe", See also "Cat")]

(11). [Thochu nyagwo, Gyarung tabrok, Takpa akpo].

(12) [Gyarung nye, pish-nye, (Burm.), Horpa nye-le, Takpa nyenti (Dhim. Nag.). Many nashcha]

(13) [Gyarung, Takpa khi].

## 14 Ear.

a. T. w. rna, rnawa, na, Lh. naru Kir. naba, Murm. nape, New. nhai pong, Gur. nabe, Mag. na kyp, Sunw. nepha, Chep. no, (hang. na; Naga na, tenaung, teluu, tenhuun, an e; Manip. na, kaus, khe-na &c. [but this may be from kan]; Singph. Burm. Kar, Yum. na, Kar. nho, ka-na. (14)

Cauc. en, in, hanka.

b. T. s. am-cho, Serpa am-chuk.

## 15 Earth.

T. s. Serp. Murm. Gur. Chep. (hang. sa, Lh. sab, New. cha, Mag. jha; Bod. Gar. Nag., Karen ha; Naga ha-wau (15.)

Samoid ya, Jap. tsi, zi; Turk. yazlan &c.; Cauc. misa, musa, mitza, sach &c.; Zend sa.

## 16 Egg.

T. w. sgonga, s. Serp. gongaz, Lh. gongdo, New. khyen.

Cauc.—Lesg. gunak, kor-kon, gaga &c.

## 17 Elephant.

a. b. T. w. glang-chen, s. Serp. langbo, Lh. lang-chen, (17) Chang. lang-pei; Champ. lamun; Burm. w. chhang, s. s'hen, Kar. k'hong, k'ha, Yum. saug-hung, tshi, kusai, kushai; Mon shen, tsin, Lau tsang, chang, tyang, Chiang.

Chinese chhiang, sio, siang; Suahili simba *Asones*.—Jav. leman, liman, (Champhung), Biuna, Mal. beram, Bin. b'angae, bringkil.

## 18 Eye.

a. T. w. mig, s. mik. (18) Him. mik, amik, michi, mido, mak, mikha; Abor amig, Kol m. t, med, Dhimal mit, Bod. wagon, Gar. makar; Naga mit, mik, tenik, tenik, tenok, awhi; Manip. mit, mihik, mik, anak, amicha, onit, amit; Singp. mi, Burm. w. myak-ehi, myet-i; Kas. kamot, Mon mot, pamot, An. mat [See Mon-An and Drav.]

Chinese mok, mu', ba chiu &c; Jap. mamige, mey. *Africa*.—Makua meto, mezo, Suah mato, Kihiau messo, (these E Afr. terms are plural), Kongo mesa; Malag. massu &c *Ason*—mat, mata &c.

## 19 Father.

T. w. pha, s. pala (19) Serp. aba, Lh., Murm. Chang. apa, Lepch. Gur. abo, Limb. amba, Kir. ba, New. abu, Mag. lai, unu. buve, Mith. baha, Chep. pa, Aka aba, Abor babu, Dhim. Gar. aba, Bod. b'pha; Vindy. aba, baba &c; Nag. apa, apu, opa, apu, va, taba;

(14) [Gyarung *tirne*, Manyak *napi*, (Murm.) Takpa *nt-blep*, (*blep* is "leaf") Horpa *nyo*

(15) [Tho-chu zip, Gyar. se', Tanka sa']

(17) [Gyar., Takpa lang-chen, Sokpa thabo-che, Horpa lamo-chen.]

(18) [Gyar. *tanmyek*, *tanmyek* (Burm.), Takpa me-long, Many. mni, Horpa mo (Chin.)]

(19) [Gyar. *tape*, Many., Takpa, Horpa *apa*.]

Manip. apa, pa, ava, iba, papa, avu, Singph. wa, Burm. phae, Kar. pa, Yum *ka-pha*, phai, ba, bo, abha; Mon bah, bha.

Common in all parts of the World, Mongol, Samoide, Turk., Semitic, Afric. aba; Turk. Tumali baba &c. &c.; Asones.-bafa, papa, bab, bpa, pua, pupa &c. &c., [ibu (Manip) "Mother"]

## 20 Fire.

T. Him. me (20), Him. mi; Aka ummah, Abor eme, Dhim. one; Naga mi; Manip mai, *chami*; Burm. ni, Kar. me, Yuma mi, me, mai; ? Mon miot; (See Mon-An)

Chin. we; Aino abe, akeh, ambe, Jap. fi; Fin bi &c; Afr.—Tumali ibi, ibe, Kuam. mo, Malagas afe, apo, afu; Ason—Niha-Pol. afo api &c.

## 21 Fish.

T. w. New. nya (21) Murm *tar nya*, Lh. ngaya, T. s., Serp Limb. Kir. nga, Sunw ngau, Gur. *taugua*, Lep. ngo; Aka ngay. Abor engo, Bod. Gar. na; Naga nga, ngin, nva, angu, angua, kho; Manip kha, *chakha*, khai, khi, nga, *sanga*, *thanga*; Anam kha, Mon ka, Kas. dokha, Nicobar ka.

Fin kal, k'ol &c, Samoid kual, Korea koki. Asones.-ka, ika, ikan (Mon-Anau)

## 22 Flower.

T. w. metog, s. mentok, Serp. mendok, Lh. mentog, Murm. men-du, Tilerk. ments. (22)

Galla doko.

## 23 Foot.

T. w. *rkangpa*, s. Serp. kango. Lh. kanglep; Mikir keng; Manip. kh. ng, ki, akho, ake; Singp. *lagong*, Kar. khong, kha, Yum *akauk*, *akok*, *ya-kong*; Mon chang, dzong, Kamb. chong, An. kang-shun (23)

Drav kal, Chinese kha. Asones.—Australian kana (Drav); Simang chang, Tobl chem (Mon-Kam); Indon. kaki &c. (Yuma); Fin, Chukchi, Eskim., Cauc. See Drav.

## 24 Goat.

T. Lh., Murm Gur. Mag. ra, (24) Changl. *raba*; Kol meram, Urao. era; Naga roan, ron. Garo *purun*, Bodo barma.

Semitic aron, Saumali arre, Danak. illa, Galla ri.

## 25 Hair.

a. T. w. skra, s, Murm kra, (25) Lh kya; Singph kara.

Fin karw, Aino karnu, Koriak *kirtshiwi*, kirwyt. Cauc.—Lesg. chara; Afr.—Makua karare, Saumali dokore, Galla &c. *chegur*.

(20) [Tho-chu, Takpa me', Many. same', Gyar. *timi*, Horpa uma' (Aka)]

(21) [Gyar. chu-nygo, Takpa nya, nga Horpa hya].

(22) [Many, Takpa mento, Horpa meio].

(23) [Tho-chu *jako* (Yuma) Horpa ko, Sokpa khoil (Drav).]

(24) [Takpa ra]

(25) [Takpa kra].

*Ason*,—Cer ukar, Australia tulkure

b. T. s. Serp ta, Limb. thagi; Kar thu (See Mon-An.)

Fin ata, at &c. *Asones*, - ? Panei tawa

c. T. w. spu, Dhim. mui tu; (25c) ? Kol ub, up.

Fin up, ip; Chin bo. *Ason*.—bok, but, bu &c (probably Dravir.)

## 26 Hand

T. w. lag pa, (26) s. Serp. lango, Lh. lappa, Lep. kaliok, New pa laha, Gur. lopta, Aka lak, Abor elag; Naga dak, chak, yak; Singh leta Burm. w. lak, s. let.

Turkish iik, Ost lagol. *Ason*—Indon. lengan (generally "arm"), Sunda linga, Pol. ringa, linga

## 27 Head.

T. w. mgo, s. Serp go, Lh. gutoh; Naga kho, tako, Manip. kok, kui, kau, akao; Burm. ghaung, lu-gu, Kar kho; Nicobar koi. (27)

*Ason*.—Simang, Bin. koi, kue, kai, (Manip. Nicob.), Balignini ko, Batan ogho. Jap. kaobe, Kam kabbel; Aust. kabera; Cauc.—Circ. kah, aka &c; Iranian kapala, cajut, &c

b. Gur kra, Mish. mkura, B. d. khoro, Manip. takolok (Tib kra "hair"); Yum lu, hlu; ? Kas kli.

Cauc—korte &c Iranian kala, cranium &c. *Asones*—Sim kala, Aru guli, Born takolah, Mal, "scull" tankora.

## 28 Hog.

T. w. phag, s. phakpa, Serp phak, (28) Lh. phagpo, Chap piak, New pha, Sunw po; Mag wak. (? Aka kukpa.) Abor eek, Garo vak; Naga vak, ak, auk, thevo, thavo; Manip. bok, kabak, avak, wok, huk, ok, Singp wa, Burm w wak, s. wet, Yum wok, wet, wut.

Malayal parki. Iran pig, hog, porcus &c; Cauc hake, khaka, ka bkaka &c. (Aka kuk-pa) *Asones*.—Batan bagu, Sirawi kapot, (Manip kabak), Pol puaka

## 29 Horn.

T. w. ra, (29) s. rajo, Lh. rou, Murm. rhu, Gur ru, Sunw. guro; Lepch. arong, Chap rong, Chang warong; Abor areng, Mish riu, Dhim. dang, Garo korong, Bodo gong; Kol daring, dring, Ur marag, Male marg; Naga rong, wong; Singp rung; Mon kreang, greang, Kas. ka reng.

## 30 Horse.

T. w. rta, s, Serp. Lh. Mur ta (30), Yuma tsa, sha, Kar kthai, kthe; Turk. ut, at, Yenik kut, kus &c [Hence kuda, ghora, &c.] Arm. tai, Cauc shu, tshu, &c Sam. djuka, tshunde; Sansk ashwa &c,

(25c) [Takpa pu, Horpa spu, Many. mui (Dhim.)]

(26) [Gyar. tayak (Naga), Many. lep-che', Takpa la, Horpa lha].

(27) [Gyar tako, (Nag) Takpa gok-ti (Manip) Horpa gho].

(28) [T'oh-chu pi, Manyak wah, Takpa pha, (Newar) Horpa vah].

(29) [T'ho-chu rak, Gyar. taru, Many. rubu, Takpa ruba, Horpa krumbo]

(30) [Takpa te'].

31 *House.*

*a* T. *w* Lh. khyim, Kir. khiun, Murm. dhim, Sunw. khi, Gur. tin, Limb him, Serp. kangba; Abor ekum; Naga hum, ham; Manip. yim, yiu, shiun, shin, tsun, chin; New. chhen, Burm. im, eing, Kar. bi. gueng, Yuma ing, eing, um; Magar yum; Mon he, Kas? root ini, Kuki teng. (31)

(Samoiède ma, me, men &c. ?) *Ason*.—Tobi yim, Mille im, Sunda ima, Sav. emu; Indon. ruma, huma.

*b* T. *s*. nang; Mrung nao, Bod. nou, noo, no, Anam dang, na, ya, nya, ngua.

Cauc. unneh. *Ason*—Lamp nou (Bodo).

32 *Iron.*

T. *w*. Ichags, *s*, Serp, Lh. chhya; Naga kache, katse; Mon pasoe, pathway. (32)

Korea soi, suy, Samoid. yese, bese, basa, &c.; Cauc. achik, icha, ask &c.—; Iranian æs, eisen, ayas; *Ason*.—Indon. base (Mon pasoe), bosì, basi, besi, bisì &c.

33 *Leaf.*

*a* T. *w* loma, Lh. dama, Lep lop (33) Murm. New lapte; Gur lau, Mag. lha, New. hau; Abor anne, Mish. nah, Dhim lhava, Bod lai; Manip. na, thi-na, thing-na, sing-nu ("tree-leaf"), Singp. Jili lap, Burma rwak, yuet, Kar. la, Yuma la-kang, An. la; (Drav. elei, ela &c.).

Fin lopa, lopat, lopta &c (Tib. Murmi &c.); Malagas. ravi; *Ason*.—Erub lum, Binga rupa, Savo rau, Pol lau, rau, Indon. daun, raun, Sumatra, Phillip. botong, Mal. &c. lai, a segregative used in enumerating flat objects, as cloths, sheets of paper &c.

*b* Tib. *s*. hyoma, iyowe, Serp. hyomap, Lh. syoma, New. hau. Chin. hio.

34 *Light.*

*a* T. *w*. hod, Limb. ot; Naga oitike. (34)

Turk. syod.

*b* T. *s*. hwe, eu, Serp. Lh. ew, Singp. thoi, Jili thwe.

35 *Man.*

T. Him mi, Abor ami, (35) Mish. name, Garo miva; Naga mi, ami, theme, thema; Manip. mi, thami, mu, samu, mai, chawai; Yuma ku-mi. Fin mios, mis, mes, pioa; Turk. bai; Zend memio; Afr.—Galla mi, ma, Manding. mu. *Ason*.—Indon. mama.

36 *Monkey.*

*a* T. *w*. sprebu, (36 *a*) Lh. pya; Aka lebe, Abor sibie; Naga vah;

(31) [Tho-chu kih (Sunw.) Gyar. chhem, Takpa khem].

(32) [Tho-chu sormo, Gyar. shom, Horpa chu, Many. shi].

(33) [Horpa bala', Takpa blap (New., Dhim)].

(34) [Tho-chu uik, Horpa spho (Turk.), Many. wu', Takpa wot, Mru watai].

(35) [Gyar. tirmi (Nag Manip.), Takpa. mi'].

(36 *a*) [Gyar. shepri, Takpa. pra].

Singp. *we*, Jili *tawe*, Kar. *ta-aoe*.

*Ason*.—Indon. ? *brok*, *belo*, *ubal*.

*b*. T. s. *tyu*. (36 *b*)

### 37 Moon.

T. *w. zlava*, *s. dawa*, (37) Serp. *oula*, Lh. *dan*, Lepch. *lavo*, Limb *lava*, Kir. *la dima*, Murm. *lhani*, Changlo *lani*, New. *mila*, Gur. *lau ngi*, Sunw. *la to si*, Chep. *lame*, Aka *pala*, Ab. *polo*, Mish. *nalua*; Naga *da*, *leta*, *lura*, *yita*, *letu*, *le*; Manip. *lha*, *tangla*; Singp. *Jili sata*, Burm. *Kar. la*, Yum. *lo*, slu, *hla-pa*, *ta*; An. *klaug*, Lau *lun*.

Fin. *mano*, Korea *oru*, Samoid *iri*, *ireda* &c., Chukch. *iraluk*; Iran. *luna*, moon, mon- &c. Afr.—Danak. *bera*, Felup *fyelin*, Malagas. *vula*, *vulan*. *Ason*.—Austr. *palu*; Indon. *Pol. vola*, *bula*, *bulan* &c. (through Malagasy.)

### 38 Mother.

T. Him. *ama*, *amo*, *am*, *ma*, *mang*, *amai*, (38) Mish. *nama*; Dhim. *Gur. ama*, Bod. *bina*; Burm. *ami*, Kar. *mo*, Mrung. *amo*; Kas. *kami*, Kamb. *mi*, An. *me*.

Nearly universal, e. g. Yukahiri, Yenisei, Samoid, Fin, *ama*; Africa, Malagasi, *ama*; Asonesia, *ama*, *ma* &c.

### 39 Mountain.

*a*. T. Serp. *ri*, Aka *nodi*, Daphla *mlodi*, Abor. *adi*; Dhim. *ra*; Yuma. *lai*, *mu-ra*; Lau. *loi*, *noi*, *doi*; Lhop. *rong*; Manip. *malong*, *kalong*, *khlung*; Kar. *ko-long*, Yum. *klang*, *hlang*, *slang*; ? Mag. *Sunw. danda*.

Chin. *lia*, Tungus. *ziin*, *uro*, *ura*; Mong. *ala*, *ula*, Fin. *ur*, *Ason*.—

Indon. *luloh*, *ieleh*, *lada*, *lede*, *alanga*, *olono*, *gunong* (Manip. *ka-long*).  
*b*. T. s. (W Tib) *dak*, Lepch. *rok*, Milch. *dokang*, Tiberk. *dung-kang*, Chamang. *donk*, Limbu. *tok-song*; Male. *toke*, Gond. *dongar*; Jili. *satong*, Burm. *tong*, *taung*.

Turk. *tak*, *tag*, *dag*, *tau* &c.; Japan. *dake*, Aino. *tapkub*. *Ason*.—Indon. *letek*, ? Erub. *tulik* [Viti. *toka-tau*, but here *toka* probably means "fixed"]. *thuung solo Rotuma*.

### 40 Mouth.

T., Serp. Lh. *kha*, Milch. *kagang*, Chamang. *kahk*; Aka. *gam*, Mish. *zaku*; Bodo. *kngha*, *khonga*; Angami. *Naga ata*; Kar. *kho*, Lung-ke. *aka*, Kum. *uk-kha*.

Chin. *khau*, *hau*; Yenisei. *ko*, *gou*, *khan*; Sam. *aagan*, *ak*, *agma*, *ake*; Turk. *akse*, *agus*, &c.; Japan. *kusi*, Kamch. *kasha*; Cauc. *haku*; Semitic. *kho* (Gara, Malra); Mongol. *kurgo*, *gurga*. *Ason*.—Austr. *ka*, *karaka* (Mongol); Jav. *chikam* (Aka).

### 41 Mosquito.

*a* T. *w. sunbu*, *mchurings*; Abor. *sunggu*; ? Kol. *bhu-sundi*, *bhu sendi*; Manip. *sangsan*, *hacheang*, *kachang*; Kumi. *chang-rang*. *Ason*.  
Kailli. *sani*, Murray I. *souney*. Bina. *samulan* (Kumi)

*b*. T. s. *sye-dongma*, Lh. *zen-dong*, Him. *lam* (with other roots join-

(36 *b*) [Gyar. *ti*].

(37) [Gyar. *tsile*, *chile*' (Nag. *le*), Many. *lhe*', Takp. *le'*].

(38) [Horp. Many. Takp. *ama*, Gyar. *tomo*].

ed); Aka *tarang*; Naga *mangdong*; Kumi *chang-rang*. *Ason*.—Sas. *tutang*, Bat. *tirangkas*.

#### 42 Name.

T. *Hin ming*, *min*; Abor *amin*, *Wish. ataung*; *Dhim ming*, *Bod. Gar. mung*; Naga *min*, *man, taung*; Manip. *ming. armin, omin, mi, amang*; Singp. *ming*, Jili *taming*, Burm. *amin, ami*, Kar. *mi, meng*, Yum *aming, amun*.

Common.

#### 43 Night.

T. *w. mtshanmo, s. chenmo*, Serp. *chemo*, Limb. *kusen, sendik*; *Dhim. nhi-shing*; Naga *asang-di* (Limb.); Manip. *rasa, rosa*; Singh. *sana, Jili sanap*.

Turk. *achsham*; Mong. *so, chei, suni*; Yenisei *sai*; Aino *asi, asiru*; Jap. *joru*, Fin *ose*; Semitic *asar, azar*, (Mar. Ghar.); *Afr.*—Malagasi *asine*; *Ason*.—Balig. *sanguna*, Tid. *singi bungi*, Mang. *chan*.

#### 44 Oil.

a. T. *w. hbrumar, marku*, Bhut. *makhu*.

Japan *abra*; ? Kilimani, *makura*.

b. T. *s. Serp. num*, Lep. *nam*, Limb. *ninge, mingay*; Kol *sunum*; Naga *manga*; Singh. *Jili, Lau nam-man*.

*Ason*.—Bis. *nana*, Pol. *faugo, pani*; Indon. *miniak, minako, miaa* (Limb., Naga).

#### 45 Plantain.

T. *s. Lh. ngala*, Kir. *ngak-si*; Naga *ngo, mongo, mango*; Manip. *ngo-shi, nga-chang*; Singp. *lango, Jili khungo*.

*Ason*.—The Indon. *pisang* may be an Ultraiadian term, *pi-sang* (Comp. *nga-chang* &c.)

#### 46 River.

T. *w. gtsangpo, s. changpo*, Serp. *hyung*, Lhop *chhu kyong*, Lepch. *ong kyong*, Limb. *wohong*, Mur. *syong*, Kir *hong-ku, Gur. khwong*; Mishmi *tsalo*; Naga *joan, shoa, swokua*; Manip. *shinggu*; Anam *song, sung, som*.

Pashtu *sean, sin, siut* (hence *Sindu, Hindu, Indus, Scinde* &c.); Ugr. *shor, shur*; Mongol *chun, usun*; Turk *usun, su, sug, yai-su, dsulga* &c.; Ugr. *iyaga, yugan* &c.; Sam. *yacha* &c.; Ug. *yo, yozi* &c.; Korea *ha syu*. *Ason*.—Indon. *sungei, sungai, sunge* &c.; Cel. *salo*.

#### 47 Road

T. *Hin. lam. New lon, Sunw. la*; Aka *lam-tau, Ab lam-be* Mish. *ailam*; *Dhim dama, Bod. lama, Gar. lam*; Naga *lam, unglan,, leman*; Singp. *lam. Jili tanglong*, Burm. *lam. lan, Yum lam, lang*; Kas. *lanti, Mon dan, ga-lan, An. dang, Lau tang*.

Chin. *lu, lau*; Gara *orom, Mahra horom*; *Afr.*—Malagasi *lalambe, Suahili jira, Sech sela, Ason*.—Indon *rorong, lorong, balan, lara* &c. *langan, turang, taluna, dalang, dala, jolo, jalan, Pol. sala, hala, harauni, ara*.

48 *Salt.*

T. w. tsha, s. Serp. Lh. chha, Mur. Gur. chacha, Mag. cha, New. chhi; Dhim. dese, Bod. shyung kare, Gar. syaug; Naga matsu, metsa, matse, machi, sum, hum; Manip. ntsu, machi, miti, ti, nchi, matai, kasam, thum; Singp. tsum, Jili chum, Burm. chha, tsha, Kar. ðha, Yum ma-tsi, shete.

Japan shiro; Ugr. sow, sol, sula sek, so, &c; Samoide si, sir, sak &c; Cauc. slug; Indo-Gur. sal, salz, sout, salt &c.; Afr.—(Galla usu, Danak assebo, Malagas sira (Jap Sam.) Ason—Indon sia, asi, si-yok, sien, asin, asiad, sira (Malagasi), mase (Manip. machi), masikh, masin, penasim, mengahi Pol uhane, masima, masi.

49 *Sk n.*

T. w. pagspa s pagpa; [? Bodo bigur, Garo bigil; Naga takap, (inv); Jili naphik; Singp. phi, Kar. phi, Yum moe-pik; ? Kamb. si-bek.

Chinese,—phi, phue. Ason.—Austr. bokai, bukai.

50 *Sky.*

T. w. nam kha, s. Serp. Lh. nam, Kir. nam-cho; Naga aning, anung. Samoid,—nom, num, nob, nyoa; Ugr. in, ninak, inniyn. nuinna, no-nem, nair; Kashmir nab; Ason.—Timor neno, Kissa onga [See Sun, Day.]

51 *Snake.*

T. w. sbrul, s. deu, Serp. drul, Lep. beu, Mag. bul, Sunw. bu-sa, Gur. bhu-guri; Aka tabuk, Abor. tobi Mish. tobu, Bod. jibou, Gar. dupu; Kol. bing; Naga pu, phalu, purr, thofa, zhu; Manip. marun, pharu, phru, phrui, mari, phurun, phrul, lil, nrui; Singp. lapu Jili tapu; Burm. mrwe. myue. Yum. rul, rui, pui, pwa, marui; An. ran.

Malagasi bibi; Kwamam, oria; Bengali uraga, Hind. Pash. mar; Ason.—Tilang. bio (Lepch. Yuma) N. Austral. amabit; Indon. ular, ula, orei, alhin &c.

52 *Star.*

T. w. skarma, (52) s. Serp. karma, Lh. kam, Mur. kar-chin, Gur. tar-gya; Ak. takar, Abor. tekari; Manip. tikron; Singp. sagan, Jil. sakan, Burm. kre, kye.

Ugrian,—chur (Ost); Koriak. ogor; Yenes. kaken; Korea. kurome; Mong. odon; Iranian. tara, dara, staranin, astrum, stella, star &c.; Afr.—Suahili tara; Ason.—Kayau. kraning, Viti, kalo, Indon. entara, ndara, dala, etah, tawar, war &c. (war is probably a different root, being found in New Guinea, Torres St., Australia &c., tara is probably of recent Arian origin.)

53 *Stone.*

T. w. rdo, s. Serp. Lh. do; (? Gond. tongi; ) Anam. da.

Korea. tu; Ost. to; Other Ugr. lang, ko, ku, kiwi &c. ? Malagasi. vatu.

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(52) [Horp. sgre, Many. kra', Takp. karma].



54 *Sun.*

T. *nyima* (54); ? Kol *singi* (See "Day").

55 *Tiger.*

T *w stag, s tak*, (55) Serp *jik*, Lh. *tah*; Yuma *tehak-ke, tuk-ke*, *tagain*

Iran. *tigris* &c.

56 *Thoth.*

T Serp. Lh *so*, (56) Tiberk *soa*; Murm. *swa*, New *wā*, Gur *saʔ*, Mag. *syat*, Changlo *shia*; Nag. *pa*, Manip *ava*, *ha*, *lu*; Burm *swa*, *thwa*.

Japan *cha*, *ha*, *fa*; Ugr *pu*, *hui* &c; Semitic *sin*; Turk. *tis*, *tish* &c; Tungus *it*; Afr.—Malag. *nifi*, *nife* Ason—Indon. *yus*, *titi*, *ngisi*, *isi*, *nisik*, *niso*, *niho*, *nilo* &c (Malag)

57 *Tree.*

T. *ic. ŋon-shing, s shing-dong, tam*, (57) Serp. *dongo*, Mur. *dhoing*. Lh. *shing*, Tiberk *Milch botung*, Limb Mag. *sing*, Kir. *sang-tang*, Gur, *sin-du*, New *sina*; Aka *sangua*, Ab. *sine*, Mish *masang*; Dhim *shing*; Naga, *sang-tung*, *san-tung*, *sun-dong*, *si*; Manip *thing-bang*, *sing-bang*, *thing-kuang*, *thung-rong*, *asing*, *hing-tong* (lib), *hing-bang*; Kar *theng*, *thi*, Yum *ting*, *teing*; Kas *ta ding*, Lau *ton*, *tun*

Chinese *shu*, *shu*, *ch'hiu*, *chang* &c; Yenes *hochou*; Sam *cha*; Ug. *suy* &c; Cauc *che*, *she*; Kamch *utun*, *utun*, *unda*; Ason—Lamp. Land. *batang*; Phil *dutung*, Sunda *tang-kal*, (Mal &c. *tang-kai* "stem").

58 *Village.*

a. T *w yul tsho, s thong*, (58 a) Kir *teng*, Chang. *dang*; Abor *do-lung*, Mish *mating*; Gar. *song*; Naga *ting*, *ting-khua*, *ching*.

b T. *w yul tsho*, Serp. *yul*; (58 b) Naga *yum*, *ayim*, *yam*; Maring *yul*, *yon*.

59 *Water.*

T. Serp. Lh *chhu*, (59) Limb *chua*, Kir. *chawa*, Gur *kyu*, Sunw. *pankhu*; Naga *tsu*, *dzu*, *zu*, *atsu*, *tu*; Manip. *aichu*, *tu*, *tundu* [Gang-Ultr. *ji*, *si*, *ti*, *di*, *ri*, *tui* &c. Mon *dai*].

Chinese, *chui*, *shui*, *sui* &c; Jap *mizu* &c; Samoid *tui*, *itu*, Ugr. *uit*, *ute*, *wesi*; Turk. *shiu*, *su* &c; Mong *usu*, *usun*; Ason.—bisan, *mazi*, *meze*, *mazi* &c. Ason.—Indon. *chie*.

60 *Yam.*

T. *w. dona, s thoma*, (60) Serp. *dhoa*, Murm. *teme*, Gur. *taya*; Bodo *Mrung tha*; ? Kol *da sang*.

Chinese *dua tu*, *tua chu*; Ason.—Indon *uda*, New Cal. *uti*.

(54) [Gyar *kini*, Many. *nyima*, Horpa *nga*].

(55) [Horp. *stak*, Takpa *tee*].

(56) [Thoch. *swe'*, Sokpa *syu-chi*, Horpa *syu*, Gyar. *tiswe*, Takp. *wa'*, Many. *phwi'*].

(57) [Gyar. *shi'*, Many *sapo'*, Tapk. *sheng-dong*].

(58 a) [Gyam *twang-cha*].

(58 b) [Takpa *yu*, Many. *hu*, ? Gyar. *wo-khyu*, *tu-khyu*].

(59) [Thochu *chah*, Gyar, *tichi*, Takpa *chhi*, Many. *dya'*, Gyam. *shui* (Chin)].

(60) [Gyar. *seten*].

## APPENDIX TO CHAP. VI. OF PART II.

## E.

VOCABLES NON-BHOTIAN IN ROOT OR FORM COMMON TO THE NORTH  
ULTRAINDIAN, HIMALAYAN, AND MIDDLE GANGETIC LANGUAGES. \*

1 *Air*.

a. Changlo *ridi*, Akadori, Yuma *ali*, *kali*, &c. Burm. *le*, Kar, *hli*, *khli*. (1 a).

Fin *ilma*, *ilm*, [*ila*, *elawa*, *elem* &c. "Life"] Wog. *il* [Ost. *il*, *wul*, *ta*, Mag. *el*-t, "Life"], Turk *maıl*, *chil*, (Comp. "Wind", Yukabiri *ili*, Aino *re*, Turk *il*, *eil*, *chil*, *sil* &c.; Mahrab *era*, Gara *ire*, Arab *re* &c.).—Ason.—Sumba *riru*; "Wind", Mandh. *iri*, Ut. *lauri*; Celeb. *puire*, *pori*, &c.; Aust. *mail*, *wiri-nguma* &c.; Pol. *savili*. [See D 1]

b. Limbu. *samit*, *shami*, Lepch. *sagmat* Mag. *namsu*, Sunw. *phase*, Milch. *hash*, Ab. *asar*; Manip. *nung-sil*, Khoib. *nong-lit*, Maram *nhlut*, Lub. *masi*, N. T. *masu*, C. T. *mashia*, Maring *marthi*; Nag. *rang-che*. (1 b).

Mong. *achur*, *ahur*, *uhr*, Tib. *hur* (wind) [See B, Mon-An. The Bima *simei* appears to be connected with the Limbu *shami*].

2 *Ant*.

a. Serp. *rhumma*, Abor-M. *mirang*, Mish. *aruang*, Jili *tsang-lang*, Lub. *chaling*, N. T. *lang-za*, Khoib. *miling*, Mar. *phayang*; Yuma *pa-leng*, *maling*, *pa-lein-tsa* [Drav. *Ason*.—See Drav. Some of the Asonian words are immediate derivatives from Ultraindian. Thus the Maring *miling* is found in the Bugis and Dore *biri*, Kand. *bere* and with a final *s* in Madur., Baw. *bilis*, but this may involve a separate root for Simang has *les* and Pani *las-ga*. The Abor *mirang* and Mishmi *ruang* render it probable that the Tibetan *rag*, Sunw. *rag-machi* and Burman *pa-rwak*-chhit or *pa-yuot*-sik present the same root].

b. Gur. *chiji*, Sunw. *rag-machi* (*rag*, Tib.); Murmi *syon-ri*, Bod. *ha-sa* brai, Ahom *nyuchu*, Deoria Ch. *chimechi*; Nag. *macha*, *mathang*, *tik-sa*, *tik-ha*, *hache*, hung-*zah*, *tsip chak* &c.; Manip. D. *lang-za*, *chamcha*, *kak-cheng*, *nteng*, *nteng*, *tangin*, *mateang*-*pw*i, *ching-kha*; Yuma *matsi*, *pa-lein-tsa*, Burm. *par-wak-chit*; (Drav. *chima*, *pijin*)

c. Lepch. *tak-phyul*, Limb. *sik-chem-ba*, Kir. *sa-chaka*-va, Nag. *tik-sa*, *tsip-chak*; Manip. *kak-cheng*.

6 *Boat*.

Gurung *pla*-va; Kumi *plaung* [See Tib-Ult. and Drav. (a)].

\* In App. E the roots, not the definitives, are italicised. I have substituted "non-Bhotian" for "non-Tibetan", as Mr. Hodgson's East and North Tibetan vocabularies now show that several of the vocables are Tibetan.

(1 a) [Gyar., Toung-lhu *ta-li*].

(1 b) [Thochu *mozyu* (Manipuri D. *masu* &c.)]

## 7 Bone.

Gurung *nugri*; Garo *gring*, *kereng*, Maring *khru* &c. [See Tibeto-Ultr.]

## 8 Buffaloe.

a. Limb. *sawet*, Kir. *Sanwa*. *Saw* and *san* are probably the root used for "Cow" (b.),—*et* and *wa* being def. postfixes.

b. New. *me*; Deor 'h. *me*, Asam *moh* ("Cow" Murm. *mhe*, *mih*, Sunw. *bi* Burm. *me*.) (8 b).

c. Aka *men-duk*, Abor *men-zek*, *men-jek*, *men-jeg*; Naga *tek*. "Cow" Ch. *ta-gu*, Turk. *inak*; ? Fin *traks*. Ason.—"Cow" Bis. *daka*.

## 9 Cat.

Yuma *mim boi*, Newar *bhou* (9).

## 10 Cow.

a. Sunw. *bi*, Limb. *bit*, *yapi*, Kir. *pit*, Lepch. *bik*; Dhimal *pia*, Karen *hpi*, *bing*, Bengali *ga-bhi* (Drav. *pei*, *peta* &c., and see B. Mon.—An. and D. Tib.—Ult.) (10 a).

b. New. *sa*, Aka *shye*, Abor *sou*; Mishmi *ma-tso-kru*; Singph *kan-su*; Gar. *mashu*, Bod. *mashu-go*; Naga *masu*, *masi*, *nasi*, *mahu* &c.; Kasia *ka-ma-si*; Yuma *shya*, *tsi*, *tcho*, *ma-chou* ("Buffaloe" Tib., Ultr.—Semitic). (10 b).

Chin. *sua gu*, *sha gau* &c. Ost. *mes* Perm *mos*, *mus*, *mys*, Wog. *misye*. Lat. *bos*.—Af Sumali, Galla, Bishari &c. *soah*, *sua*, *osha*. The Ostiak *chosy*, Kamchat *kusha*, Lap. *kusa*, *kos*, Shangalla *kusa*, appear to combine the sibilant root with a prefix or another root. Comp. Singpho *kansu*.

c. Gur. *myau*, Mur. *mhe*. These forms are probably related to a. See also "Buffaloe" b.

d. Mag. *nhet*. *Nhet* is possibly the Turk. *inek*. (10 d).

## 11 Crow.

Aka *pak*, Ab. *pivag*, *piak*, *puag*, Naga *vakha*, Yuma *wak*, *wut*, S. Tangk *awak*, Maring *ak*, Maram *chag-hak*. (11).

Ason.—Tag. *cvak*, Iloko *wak*.

## 12 Day.

a. Limb. *len-dik*, Kir. *len*, (12) Abor *longe*, Songp. *kalkan*, Mar. *lan-la* &c.

Ug *hun*.

(8 b) [Manyak *ding mi*].

(9) [Takpa *syim-bu*].

(10 a) [Mang. *wo mi*].

(10 b) [Sok-pa *sa lo*, Thochu, "bull", *zyak* (Yuma "cow" *shya*)].

(10 d) [Gyar *nye nye*, Gyami *nyen*, *neu*].

(11) [Takpa *akpo*, (Maring *ak*), Thoch. *nyag-wo*].

(12 a) [Takpa *nyen ti* (Limb *len dik*). The Horpa *nye-le* appears to show that *nyen*, *len*, is the Tibetan *nye* with an *n* postfix].

β. Magar nam-sin, Suwn. na-*thi*, Tiberk. *zhang-ma*, Singphu ning-*thoi*, Nag. *asongu, tsing*. Deor. Ch. *sanja*. Lungkie sun Manip. *ngasun*, masung, asun Rakh. "Sun" *tshan*, Burm. *tscheng, chung*, Nancow. *han*, Bod. *shyan*, Garo *san, rasan*, Kol *sing*. The word is radically "sun" in most of these languages.

Ug *shun-uu*, Tangusian. "Sun", *shun*, Ost. *siunk*, Semitic *sham, shams* &c.

## 15 Earth

α. Limb. *kham*, Kir. ba-*kha*, Sunw. *kha-pi* (? Tib. New. *cha*, Tib. *sa*) Singf. *nyu* Jili taku (whence probably the Naga *katok*).

β. Lepch. *phat*, Manip. lai *pak*. (15 α).

## 16 Egg.

Dhim *tui*, Naga *ati*, Limb. *thin*, Kir. *uding*, Changl. *go-tham*, Tiberk. *tum*, Dhim. *tui*, Bodo don-*doi*, Gar. *tou-chi*, Singphu *udi*, Burm. *u*, Kar. *di*, Milchanang *li, lich*, Asam *koni*, Yuma *wati, adui, atui*, Nag. *ali, oti, utu, ntsu, ausu, hadsu*, Manip. *uroi-dui, maka-tui, hachu, atu, artu, wayui*. (16).

## 17 Elephant.

α. Newar, Chepang *kisi*, Sunw. *so da*, Abor-Miri *siti, site*, Manip. *ka-sai, sai*, Kar. *ka-tsho*, Nag. *sati, shiii, suti, tsu* (see Tib.-Ult.)

## 20 Fire.

Garo *wol, ver*, Manip. *wan, tavan*, Singph. *wan*, Nag. *van*, (Mon.-An.—"Sun", "Sky".)

## 22 Flower.

α. Limb. *phung*, Kir. *bung-wai*, Sunw. *phu*, New. *swong*, Aka *pung*, Abor. *apun*, Nag. *tuben, chuben, nhopu, popu* &c. Manip. D. *abun, won, pie*, Burin. *pan*, Kar. *hpa*, Guma *pa, par, papa*, Deor. Ch. *iba*, Garo *par*, Bod. *bibar*; Drav. *pu, puva* &c.

Ch. *fa, hua* &c. Japan *fana*. Semitic *ful*. Af.—Bagnon *gueson* Felup. *ba fan*, Malag. *vong, vono, vuna* &c. Ason.—com. *fonga, bunga* &c.

["Flower", is not included in Klaproth's Scythic vocabularies.]

β. Mag. *sar*, Lep. *rip*. Chep. *ro*, Manip. *par, rai, lai, cha-ra* pen (*pan* &c. in other dialects) Nag. *naru, nolong* (? Drav.)

## 23 Foot.

α. Milch *bung*, Tiberk. *bung khut* Manip. *wang*. Limbu lang *dophe* (Uraon dape) Changlo *bi*, Nag. *uphi*, Bodo *yapha*, Marain, Songpu *phai*, Kor. *chapi*.

*pa* is a common Asiatic root, but in most formations it takes final *r, n, d, t, s*, &c.; e. g. Korea. *par*, Kash. *phar*, Sindh. *per*, Hind. *pair*, Sansk. *pada, pad*, Europ. *pado, foot* &c.; Beng. *pa, poya*. Semitic *pa'im, pa'am*. Af.—Malag. *pe, fe*. Galla *fana*. Ason.—Pol. *wai, wae, vae* (Manip.), Mak. *bangkang*, Sol. *opat*.

(15 α) [Horp. *kcha*].

(16) [Gyar. *kitan*, Gyami *chi-tun*].

- b. Murm. *bale*. New. *palé*, Gur. *bbale*, Abor M. *ale*, Mag. *mihil*.  
 c. Sunw. *khwelé*, Kir. *ukharo*. Burm. *kbre*, *khye*, Kor. *khodu*, Tiberk.  
*bung khut* (Drav.)  
 d. Dhimal *khokoi*, Kumi *akok*, *akruk*, (Tib. Ult.)

24 *Gout.*

- a. Aka *shabam*. Abor *shoben*; [Dhim *eecha*.] Nag. *nabung*, na.  
*bong*, Manip. *hameng* [See Mon An ]  
 (not included in Klaproth's Atlas).  
 Af Malag. *beng. umby*, Woloff *biente*.  
 Ason.—Indon. *bembe. bimi*, *embe. ambo. imbe* &c., *kabimbi*, *kambing*. &c.  
 b. Sunw. *charsye*, New. *chole*, Lep. *saar*, *sarchru*, Chepang *micha*,  
 Dhimal *eecha*, Songpu *zyu* (Sindhi *chelo* Hind).

25 *Hair.*

- a. Lep. *achom*, Mag. *chham*, Sunw. *chang*, New. *song*, Changlo  
*cham*, Manip. *sam*, *tham*, *kosen*, Bongju *som*, Kuk. *sam*, Burm. *chhan-*  
*bang*, Yuma *tsam*, *tsang*, *chang* &c., 'Toung-thu *athwon*. The Mon-  
 Anam *thwat*, *soh*, *tau* is probably the same root.

Mong. *usun*, *usu*, chor-*chun*, Turk *asim*. Ason—Tobi *chim*.  
 (The numerous other affinities of Tobi, Pelew &c. with the Ultraindian  
 languages make it evident that *chim* is of Ultraindian origin and prob-  
 ably that the Turkish form once existed in the Ultraindian province).

- b. Kir. *moa*, Gur. *moi*. Chepang *min*, Dhimal *mui tu* (? Hind.  
*mu*), Bod *khanai*, khomon Garo *kaman*, Naga *min*, Buru *chibing*.  
 c. Nag. *kho*, *ko*, [? Bod. *khanai*, *khoman*, Gar *ka-man* ('head').]

26 *Hand.*

Milch. *got*, *god*, (Changl *godang*), Kir. *chuku-pbe-ma*, ("foot" *ukha-*  
*ro*), Limb *huk-taphe* (foot *lang-daphe*), Mag. *hut piak*, Chepang *kut-*  
*pa*, Nag *chak*, *yak*. Manip. D. *kok*, *kut*, *hut* &c Binua *kokut*, *kokot*.  
 A Ugr. *kat*, *kata*, *kasi*, *ket*, *kit* &c. Sam. *hatte* &c. Indon. Europ. *hath*,  
*hand* &c.

27 *Head.*

- a. Lepch. *athiak*, Limb *thag-ek*, Kar. *tang*, Mur. *thobo*, Abor *mi-*  
*tuk*, *tuku*, Nag. *tek*. Silong *atak*  
 Chin. *thau kha*. Sansk *mastaka*, Zend *wedege*. Af.—Tum. *adg*.  
 Ason.—Indon. *otak* &c.  
 b. New. *chhon*, Burm *khong*. Nag. *khang*, *kho* &c., Gar. *dakam*, *shi-*  
*kam*, Jili *nggum*  
 c. Gar. *kra* Bod. *khoro*, Mish *mkura* ("Hair," Tib. *kra*, Singp.  
*kara*).  
 d. Mag. *mitahu*, Manip. *lu*, *alu*.  
 e. Tiberk *pisha*, Sunw *pija*, Manip. *pi*, *api*, *chapi* &c.  
 Turk *pash*.  
 f. Abor *dum pong*, Aka *dum-pa*, Singph. *bong*, Deor. Ch. *gubong*.

28 *Hog.*

- a. Murm *dhwa*, *thua*, Kar *tho*  
 Korea *to*, *tot*, Ch. *tu*, *du*, Ug. *tua*, *tunsa*.  
 b. Gur. *tili*, Mish. *bali*.

## 30 Horse.

Milch. *rang*, New. *sala*, Chepang *serang*, Singp. *kamrang*, Burma. *mrang*, myen, Lungkhe *rang*, Kol *sadam*.

Ug *lo, lu, log*, ; Ason.—Indon. *jaran, jara, dala, ndala, nyarang*.

c. Mong. *Tangus*. Korea *mourin, moron* &c.

## 31 House.

a. Lepch *li*; ? Manip *in*, Yuma *ing*. (Tib.)

b. Mur. *yum*, Manip. *yim*, Abor *ekum* (Tib.)

c. New *chhen*, Manip. *sang*, Dhim. *cha*, Singpho *nta*, Manip *kat, shin* &c. (Tib.)

## 31 Iron.

a. Milch. *pron, rung, run*, Lepch. *panjing*, Limb *phenji*, Kir Mag. Chepang *phalam*, Murm *phat*, Gur *pai*, Sunw *wa akli*; Uraon *pauna*, Jili *taphi*, Singph *mpri*, Maram *kapha*.

b. New *na* (? Kas *nar*).

c. Lepch *pan jiang*, Nag *jian, jan, yin, yen*, &c. Deor Ch. *sung*, Burm *san, than*, Mishmi *si*, Manip *ntan, thin, tin, thir, thiar*, Aka *kakdhar*, Kumi *hadung* Dhim *chil*, Bod. *chur, chor*, Gáro *shur, shil* Tangus *shelle, zhilla, solo* &c.

Af.—Suah. *chunga* Tigre *achin*.

## 32 Leaf.

a. Kir *ubava*, Sunw *sapha*, *nabar*, Nag *tuwa* &c. Burm *rwak*, Lau *bai* (see M A)

b. Lepcha *lop*, Singph *lap*, Nag *nyap*, Tib. *lama*, Dhim *lava*.

c. Ahom *anne*, Naga *am*, Mishim *nah*, Manip *na*, *thina*., panu. &c.

## 33 Light.

a. Lep. *aom*, Changlo *ngam*, Sunw. *kango*, Aka *hang* tepa Chep. *angha* (? Bhut *dam*,)

b. Lep. *achur*, Limb *thoru*, (? Bod. *churang*); (Tib. *hur* "wind", *achur* Mongol "air").

c. New *jala*, Murm. *ajalo*.

## 34 Man.

a. Lepch. *maro*, Kir. *mana*, New *mano*, Sunw. *murru*, Aka *bangne*, Mag. *bharmi*, Chep. *pur-si*. Is the *Mur* of Murmni not the same word? *mi* is Tibetan (Burm *lu*, Drav. Vind. *horo, ala male, oraon* &c.

Pashtu Sindh. *maru* &c. &c. a wide spread root.

b. New *mijang* (masc) Dhim. *diang*, Changlo ? *songo*, Jili *nsang*, Naga *nye sung, mesung, sauniak*, Deor Ch. *most*, S Tangkh *pasa*, Kyo *mashi*

Ug. *chum, hum*, Korea, *sana, shanan* Malay *jan-tan*.

## 36 Monkey.

a. Sunw *moro* ("Man", *murru*) Mish. *tamrm*.

b. Gur *timyu*, Chep. *yukh*, Burm. *myauk*, Yuma *yaung*, Manip; *yong, kozyong, nayong, hayong, ying khayoy*, Dhim. *nhoga*.

38 *Mother.*

Aka *ane*, Abor. *nane*, Singph. *nu*, Nag. *anu*, *onu*, Manip. *anu*, *onu*, *noa*.

40 *Mouth.*

a. Lep. *abong*, Abor-M. *napang*, *napung*, Nag. *tebang*, *tabang*, Kum. *labaung*, Semitic *pam* &c.

Af Gal. *afan*, Dan. *afa*, Malag. *vava* Ason.—*pang*, *ban*, *fafam*, *baba*, *fafa*, *fefa*.

b. Limb. *mura*, Mag. *nger*, Manip. *mamun*, *chamun*, *khomar*, *khamor*.

c. Kir. *doh*, Mar. *muthu*, Gond. *udi*, Murm. Gur. *sung*, Sunw. *so*, Chep. *mothong*, Newar *mhotu*, Kir. *doh* Gar. *hotong*, Nag. *tun*.

d. Changl. *noang*, Dhim. *nui*, Manip. *ania*.

41 *Moschito.*

a. Lep. *mang kong*, Nag. *mang-dong*, Manip. *kang*, *chakhang*, *ting-kheng*, *tangkhang*, Burm. *khyeng*, *khyen*, Yuma *kang*.

b. Abor. *sunggu*, Mish. *todze*, Kar. *patso*, Manip. *kachang*, *sangsang*, *thangtan* *thangkran*, *karchi*, Bodo *tham-phor*.

c. Chep. *ya* Aka. Mish. *ta* Nag. *ayah*.

d. Changlo *binang*.

44 *Oil.*

Murm. *chigu*, Gur. *chugu*, New. *clukang*, Mag. *sidi*, Changl. *si*, *men-si* Chep. *sate* Mish. *sua*, Burm. *achhi*, *shi*, *tsi*, Yuma *tsi*; Nag. *tanthi*, *totsu*, *kakizu*, Manip. *to-chai*, Dhim. *chuiti*, Bod. *thou*, Deor. Ch. *tu*, Manip. *to-chai*, *thau*, *thao*, Karen *tho*, *thu*, Bongju, *kersi*.

45 *Plantain.*

a. Lepch. *kar-dung* Singph. *lungel*.

b. Limb. *la seh'* Ker. *gnak si*, Murm. *mache*, Mag. *mocha*, Sunw. *mu-hi*, Chep. *maise*, Mish. *phaji*, Manip. *ngachang*, *ngashi*.

46 *River.*

a. New. *khusi*, Dhim. Garo. *chi*, Abor-M. *asie* ("Water").

b. Mag. *kholo*, Chep. *ghoro*, Kol. *gara*, Uraon. *khar*, Naga. *khar*, Sunw. *kha*, Kum. *ta-gha*.

c. Bodo. *doi*, Manip. *duidai*, *tui-koak*, *tuthau*, *tu* (Water).

49 *Skin.*

a. Lep. *athun*.

b. Limb. *horik*, Garo. *holop*, Kol. *harta*, *ur*, Manip. *ohul*, *arhun*.

c. Murm. *di bhi* (Gur. *dhi*) Singph. *phi*.

50 *Sky.*

Lepch. *ta liang*, Sunw. *sarangi*, New. Mag. *sarag* Bod. *no khorang*, Abor. *taling*, Mish. *bra*, Nag. *rang-tung*; Male. *sarange*, (Day &c.), *Rang. lang*, *lun*, *lungo* &c. is a wide spread root applied also to *air*,

*day, sun, God, Tib, Ugrian, African, Asonesian.* In the more radical form *la, ra*, it is still more common.

### 52 *Star.*

Changlo *murgeng*, Singp *sagan*, *sakan*, Manip *chagan*.

### 53 *Stone*

Milch. *rak, ru*, Tiberk *rah*, *galking*, Him. *long, lung, lohong* &c. com. (fib *do*); Garo *long*, Aka *elung* Abor *iling, ilung* Mish *mpla* Singp *h nlun*, talong Nag *long* Manip *nung, lung, talo, thulung, ngalung, Kum lung, lum, Car long, lu*.

♀ Mong. *cholon, cholo* (ordinary form of Scythic *kual, kel* &c.) Sindhi *rehan* Af.—Sann. *dugha, lugha* Galla *duya, daga, daka* Amb. *dengya* Makua *maluwu*. Ason — Mille *rakah*, Tasm. *loinai, loine*, Aust *walung, marama* &c.

### 54 *Sun.*

- a. Abor *arung*, Nag *rang-han* (See Sky.)
- b. Bodo *shan*, Gar *san, ra-san*, Deor. Ch. *sanh*, Nag. *san, rang han*, Singp. *tsan*, Jili *katsan*, Kol. *singi*
- Tung. *shun*, Ug *shundy* &c. Semitic *sham* &c. Indo-Eur. *sol, sun* &c.

### 55 *Tiger.*

a. Limb *keh va*, Kir *kiwa*, Dhim *khuna*, Nag *khu, kayi, takhu, akhu*, Manip *kai, takhu, chakwi, khu-lui, akhu-li, sang-khu, sakwi, sa. khwu*.

b. Mag *ranghu*, Singph *sirong*.

c. Sunw. *gupsa*, Chep *ja*, Male *sad*, Nag. *sa, sahnu, chianu*, Bod *mocha*, Garo *mtsa*.

d. Ab. *simioh*, Aka *samnya* Mish *tamya*.

### 57 *Tree.*

a. Lepch *kung*, Manip *thing-kung*, Kumi *akung, tagom*. Simang *kuing*.

b. Tiberk *pong*, Bod *bonq-phang*, Garo *pan*, Deor Ch. *popon*, Burm. *apang, apen*, Singphu *phun* Nag *bang, pan, pe*, Manip *thing-bang, sung-bang, hing-bal* &c.

Ug *pun, pu, ia* &c. Sam *pu, pe, poi*, Tungus *mo, mo*, Pushtu *wana*, Af. *vahad*. Ason.—*pon, puang, pohon, puna* &c.

### 58 *Village.*

a. Murm *namso*, Gur *naso*, Nag *ha*.

b. New. *gang*, Sunw *gaun*. Lhop. Lepch *kyong*. This vocable is widely spread in Ultrindia and Indonesia, but frequently applied to "family", "tribe" &c.

### 59 *Water.*

a. Kumi, Kyon *tui*, Kyan *tuwe*, Mrung *tei*, Lungk. *ti*, Rakh. *ri, re*, Kar *hti, hte*, Chep. Milch. *ti*, Magar *di*, Chang *ri* Murm *kui tui* [see T. U.]